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ERHARD RATDOLT

AND HIS WORK AT

VENICE



A Paper read before the Bibliographical Society, November 20, 1893, by

GILBERT R. REDGRAVE

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NOTE.

THE thanks of the Society are due to Mr. Redgrave not only for permission to print his paper, but for the two plates in colours (Nos. VIII. and X.) which he has presented to his fellow-members. Another plate (No. IX.), the splendid sheet of types, has been generously presented by Dr. Konrad Bürger, in whose "Deutsche und Italienische Inkunabeln" the reproduction originally appeared. Mr. Redgrave desires it to be stated that the Bibliography at the end of his paper has been revised and enlarged by the kindness of another member.

Alfred W. Pollard, Hon. Sec.

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ERHARD RATDOLT

AND HIS WORK IN VENICE 1476 TO 1486.

ODERN research has thrown a flood of light upon the annals of the early Italian press, and the facts relating more especially to printing in Venice have recently been ably elucidated by Mr. Horatio Brown in his "History of the Venetian Printing Press." Mr. Brown deals exhaustively with the wrongly dated colophon of the "Decor Puellarum" of Jenson, which has caused so much confusion with respect to the earliest book printed in Venice, and his arguments, and digest of the authorities, for and against the accuracy of the date therein, 1461, leave little or nothing to be said upon the subject. To my mind the fact insisted upon by Bernard, that this work, on leaf 59, recommends to young girls the study of certain other books, known to have been printed by Jenson, affords very strong evidence that these works, viz., the "Parole Devote," the "Palma Virtutum," and the "Gloria Mulierum," were already printed when the "Decor" issued from the press; and all these works, with one other not here included, were first printed in 1471, the paper, the type, and the format being in all cases absolutely identical with that of the disputed edition of 1461. Moreover Bernard points out that such errors are far from

¹ "De l'origine et des débuts de l'imprimerie en Europe," vol. ii., p. 190.

rare, and he cites two instances in other works printed by Jenson in the year 1480, one of which bears the date 1400 (M.CCCC.), and the other 1580 (M.CCCC.LXXX). It is possible that the workmen of that period were not well versed in the use of the Roman numerals. A work of Ratdolt's, the treatise of Mataratius entitled "De componendis versibus hexametro et pentametro," is in a similar way misdated 1468 in lieu of 1478, and has caused like confusion as to the period when he began to print at Venice.

If we pass on to the next authentic Venetian date, we are confronted with the Charter of the Collegio, or Cabinet of Venice, dated September 18th, 1469, granting certain privileges to the "ingenious master," John of Speyer, and with the colophon to the "Epistolæ ad Familiares," printed by him in the same year, in both of which documents priority for the work of his press in Venice is distinctly claimed. Mr. Brown furnishes very full information concerning the activity of Jenson and the brothers John and Windelin of Speyer, and I do not propose to touch upon this matter any further, except to point out that Mr. Brown is apparently in error in his dates relating to the first use of the so-called "Gothic" type in Italy. a footnote to his work we read that "Audifredi makes it a reproach to Jenson that he introduced Gothic characters to the Italian press. Sardini cites as proof to the contrary the Litio of 1472, ascribing it to Windelin of Speyer. The Litio of 1472 is by Franz Renner, of Heilbronn, and is in Roman character. The Litio in Gothic is by Windelin and is dated 1473." On this Mr. Brown states, "Windelin of Speyer, and not Jenson, appears to have been the first printer in Italy to make use of Gothic character. In the year 1473 he issued Roberto de Litio's 'Quadragesimale' in Gothic, and he continued occasionally to use that character, as for example in his edition of Dante, 1477." Jenson's first use of Gothic type appears to have been in 1474, and Auditredi's reproach was thus certainly mistaken. But Mr. Brown himself is doubly in error: (1) in supposing Sardini's reference to an edition of Litio in 1472 by Windelin to be a confusion with that by Renner, the fact being that there were two 1472 editions, one by Windelin in Gothic, the other by Renner in Roman type; (2) in still giving the credit or discredit of introducing Gothic type into Italy to Windelin, whereas it had been used as early as 1467 at Rome by Ulrich Han in his first edition of the "Meditationes" of Turrecremata.

The interval between the advent in Venice of the brothers de Spira and the arrival of the famous confraternity headed by Ratdolt, whose work I propose to bring under your notice this evening, needs no special comments upon the present occasion. It was a period of immense activity throughout Italy in the progress of the art of printing, and Venice takes a proud position in the excellence and value of the work she produced. In the decade between 1470 and 1480 we find the names of no fewer than fifty typographers, almost all Germans, who practised their art in this city alone. Mr. Brown points out a probable reason for the sojourn of so many German printers in Venice. It was in the great highway between Germany and Italy over the Brenner Pass, and would be one of the first important cities the printer would reach on his southward journey. Moreover Venice contained, as we know, at the close of the fifteenth century, a German exchange greatly resorted to by travellers and merchants, and it would thus be a place where the newcomers would be likely to hear of employment.

We will pass on, then, to the year 1476, the date of the first work of Ratdolt and his companions. In that year they completed in two different languages, Latin and Italian, the "Kalendarium" of the eminent astronomer, Johann Müller, of Königsberg, better known by his Latinised name Regiomontanus, or in Italian, Monteregio. The choice of this work, as I shall attempt to show, is significant, and Ratdolt, throughout his career in Italy, displayed great partiality for books on astronomy and the mathematical sciences. On the title-page of the "Kalendarium" we obtain the first mention of Erhard Ratdolt as a printer. He describes himself as Erhardus Ratdolt de Augusta, and, associated with him, we have Bernardus Pictor, also of Augsburg, and Petrus Löslein, of Langencen, in Bavaria, who is sometimes called "corrector ac socius." This would in fact seem to be the first appearance as printers of each of the

members of the firm, and in the colophons of all of the works they printed in concert their names appear thus; the sequence varying somewhat at different times.

Before I attempt to discuss the work of Ratdolt, I may pause to give a brief account of his career. His father was a carpenter and carver, living in the imperial city of Augsburg, where his name is found in the tax-book, as early as 1439, residing in the street or quarter of St. Antonin. Under various descriptions he reappears in the tax-book, still living in the same locality, year by year until 1462, when he evidently died, and the tax is henceforward paid iointly by his elder son Hans and Erhard, the subject of the present memoir. The brothers lived together in their father's house until 1474, when Erhard disappears from the tax-book and no mention of him is found therein until 1486. This interval partly coincides with his stay in Venice, though it fails to account for an antecedent period of nearly two years.

Perhaps here you will forgive me a short digression which will lead up to a conjecture as to the whereabouts of Ratdolt between the time of his departure from Augsburg, and the commencement of his career in Venice in 1476.

The famous astronomer Johann Müller, one of the most learned mathematicians of the fifteenth century, after a long residence in Vienna, during a part of which time he studied under Georg von Peurbach, and after he had stayed awhile at the Court of Matthias Corvinus, King of Hungary, came to Nuremberg in 1471. Here, with the help of Bernhard Welter, he established in 1472 a private press for the production of the "Calendar" and other works, which press was maintained in full activity until 1475, when he went to Rome, at the instance of Pope Sixtus IV., in connection with the reform of the calendar. His subsequent election to the Bishopric of Ratisbon, and his death in 1476, put an end to his career as a printer. His workmen probably became dispersed, and in this way Ratdolt, if not actually employed by Müller, may at any rate have become connected with certain of his workpeople, and have obtained a knowledge of the publications issuing from his press at Nuremberg.

This is a mere hypothesis, for which I have as yet failed to find any confirmatory evidence beyond that afforded by the undoubted fondness of Ratdolt for the writings of this author.

of Ratdolt's life in Venice I can find no trace beyond what is to be gleaned from the dates and sequence of his books. No doubt his fame as a printer became noised abroad, and the merit of his productions was well known in his native city. So much was this the case that, as Zapf, the chronicler of the Augsburg press, informs us, on the elevation of Count Friedrich von Hohenzollern to the Bishopric of Augsburg, Ratdolt was specially invited to return thither in order to undertake the printing of the religious works for the diocese—a remunerative and envied appointment, which he ultimately accepted; and departed from Venice, bringing back with him, as Dr. Muther points out, his initial letters and wood-cuts, the work of Italian artists, differing essentially in style and feeling from those in use at that time in Germany.

Ratdolt's name reappears in the tax-book of Augsburg for the first time after his prolonged absence in 1486. For a period of twenty years, from 1486 to 1506, he lived in St. Katherine Street, his name being at first mentioned as Erhard Ratdolt, then as "Meister Erhard Ratdolt," and at times also as "Meister Erhard Ratdolt (Buchdrucker)." In the year 1507 he seems to have removed to another house in the Frawengraben, and there he remained until 1527, as recorded in the various annual tax-books. As late as November 9th of the year 1527, a certain Peter Kempter acknowledges his indebtedness in the sum of fifteen gulden to Erhart Ratdolt, in the judicial records; but in 1528 the civic tax is paid by Erhart Ratdoltin, that is, the widow of Erhard Ratdolt, jointly with her son Jörg, who had long been in partnership with his father, and who, as Georgius Ratdolt, when mentioned in a colophon, seems to have caused some confusion in the mind of Zapf. He says, "Quid de Georgio isto sentiam plane ignoro;" and again, "nomen nullibi alibi vel auditum, vel lectum mihi." Erhard Ratdolt died therefore late in 1527, or in the course of 1528, a wealthy and a highly respected citizen, as Butsch tells us, for his widow paid

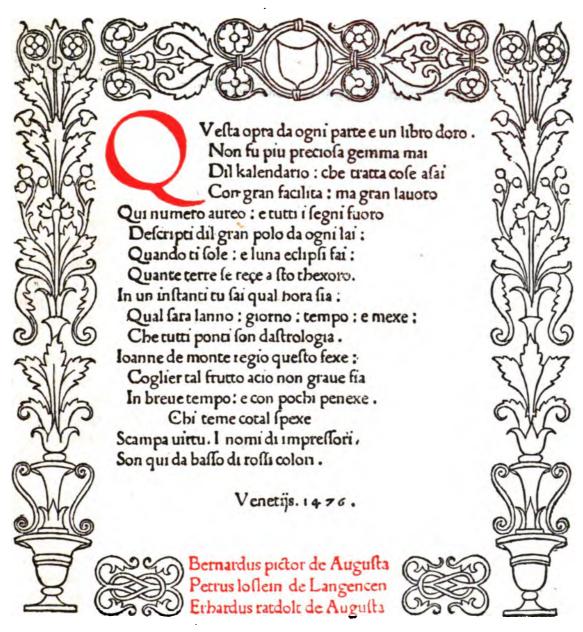
the by no means inconsiderable tax of forty gulden. It is impossible to do more than to conjecture his age, which cannot however have been much less than seventy, seeing that he printed for ten years in Venice, and for not less than forty years, alone and in partnership, after his return to his native city. All subsequent writers on the Augsburg press follow Zapf's mistake as to the date of Ratdolt's death, which is placed by him in 1516, this being the year in which the latest work bearing his name was issued.¹

Such are the few brief facts I have been able to glean respecting the life of Ratdolt, and I may now pass on to my more immediate subject, namely, an account of the works issuing from his press during his stay in Venice. I do not propose in any way to weary you with an exhaustive list of his productions during this period, but rather to notice the books which I have myself had an opportunity of examining, which include many of his masterpieces.

The "Kalendarium" of Johann Müller, in its original form, as issued by him from his press at Nuremberg about 1473, was a xylographic production in quarto, on thirty-one wood blocks, which were printed on both sides of the page. It is not clear from Dr. Falkenstein's account whether the work had thirty-one leaves or sixteen. According to this writer only three copies of this "Kalendarium" are extant, two being at Munich and one in Dresden. From the facsimile given by him in his "Geschichte der Buchdruckerkunst," the execution of the wood blocks appears to be extremely rude, but according to Dr. Muther the calendar of 1476, perhaps a later issue, contains a few astronomical figures of eclipses of the sun and moon.

The "Kalendarium," produced at Venice by Ratdolt, is an extremely elegant work, and is in every way a marvellous improvement upon the rude prototype prepared at Nuremberg by J. Müller. In many ways it displays a degree of skill and originality which, even if it were the only production of Ratdolt's press, instead of being the forerunner of a long series, would invest it with a peculiar interest. In the first place it furnishes the earliest known

¹ Mr. Weale, however, cites a Coutances Church-book printed by Ratdolt in 1518.



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example of an ornamental title-page, and of the extensive use in Italy of wood-cut initials. It is difficult to form an opinion as to whether the Italian or the Latin edition was the one first printed, but Butsch pronounces in favour of the latter. Both works are identical in arrangement, and are in fact, except as to four pages omitted in the Italian version, alike in every particular.

The Italian version, which consists of thirty leaves, commences with a poem, by way of preface or introduction, in seventeen lines, giving an account of the contents, and making mention of its author, calling attention also to the printers, whose names are stated to be placed beneath in red ink. In accordance with this statement, after the imprint of "Venetiis, 1476," follow the names of Bernardus Pictor, Petrus Löslein, and Erhardus Ratdolt, printed in red. The surnames have in no case a capital letter. The poem begins with a boldly designed Q as an initial, occupying four lines in depth, and the whole is surrounded on three sides by a graceful border, composed of three rules, the ornament of which belongs essentially to the school of Venice of this date. As will be seen from the accompanying facsimile, the foliage on the right side differs from that on the left in being devoid of central veins; the vases from which the stems issue are quite Italian in character, and recall certain of the designs in the "Hypnerotomachia" of 1499.

The calendar proper, which is identical both for the Italian and the Latin copies, occupies the first twenty-four pages, the astronomical data for the years 1475, 1494, and 1513 being on the left of the opening, and the almanack, containing the chief fasts and festivals in Latin, being on the right; the day of the entrance of the sun into the various signs of the Zodiac is marked in rubricated capitals, and the principal festivals are indeed red letter days. Following the calendar is a tabula regionum, a table of selected latitudes and time allowances, and then come ten pages of eclipses of the sun and moon, special wood blocks, to the number of six on each page, having been cut for every eclipse, to show the extent of the obscuration. The bright portion of the disc in the case of partial eclipses is coloured yellow by hand. The predicted eclipses relate to the

period from 1475 to 1530, and thus extend over an interval of fifty-· five years. Two pages are then stuck together in order to form instrumenta. On the recto is a so-called "Instrumentum horarum inæqualium," and on the verso is the "Instrumentum veri motus lunæ" with two volvelles. Then follow twenty-four pages of text in the Latin, and twenty in the Italian edition, and the book concludes with two more pages stuck together to form instrumenta, the one on the recto being entitled "Quadrans horologii horizontalis," and the other, on the verso, "Quadratum horarium generale." In the Italian calendar the names of instruments are translated. The only printed matter not common to both versions is a disquisition on the true date of Easter, and a table indicating the incidence of that festival, "juxta usum ecclesiæ" and "juxta decreta patrum," for each year from 1477 to 1531 inclusive. This is altogether omitted in the Italian version, which, as we have seen, has in consequence a total of only thirty leaves in lieu of thirty-two; a fact which has escaped the notice of bibliographers. The verses which form the Introduction to the Latin "Kalendarium" consist of six elegiac couplets, which read thus:—

"Aureus hic liber est: non est preciosior ulla Gema kalendario: quod docet istud opus.
Aureus hic numerus: lune: solisque labores
Monstrantur facile: cunctaque signa poli:
Quotque sub hoc libro terre per longa regantur
Tempora: quisque dies: mensis: et annus erit.
Scitur in instanti quecunque sit hora diei.
Hunc emat astrologus qui uelit esse cito.
Hoc Ioannes opus regio de monte probatum
Composuit: tota notus in italia.
Quod ueneta impressum fuit in tellure per illos
Inferius quorum nomina picta loco."

The type employed in these calendars, and in the earlier works of the Ratdolt series, though probably not cut by Jenson himself, bears undoubted marks of his influence, and is extremely beautiful. Its characteristics, pointed out by Mr. Horatio Brown, are "the o's very much sloped; the i's dotted high above the letter, the loops of



PLATE III.

RATDOLT'S FIRST SET OF INITIAL LETTERS.

•. • • a and e thin and meagre; no z, but zeta instead, ζ ; the b and d, and p and q formed by an o and a stroke which has not invaded the o at all." There are certain resemblances in Ratdolt's type to that of Windelin of Speyer, especially in the use of the e with the cedilla, instead of the æ diphthong, found in Jenson's print. In point of regularity and neatness the type of Ratdolt, I think, bears away the palm from both of these famous printers.

The initial letters, which are similar in character both in the Latin and Italian, and in a subsequent German version of the Calendar, are original in design, and represent branches with flowers and foliage (see pl. 3). These initials, so far as I have been able to ascertain, were not again used by Ratdolt or his companions. The style of the execution, both in the ornament of the title-border and in the initials herein employed, differs materially from that in the subsequent works of this press, for in the Calendar we find a manner resembling a pen and ink drawing in outline, whereas, in the later initials, and in the beautiful borders of the following year, the work is in what has been termed by German writers the "sgraffito manner," or white ornament upon a black ground.¹

It may be well to point out that in Ratdolt's birthplace we find almost the first use in Germany of Roman type, the so-called Antiqua, which was introduced there by Augsburg's first printer, Günther Zainer, as early as 1472, in his edition of two works by Isidorus. There is nothing however in common between the type of Zainer and that of Ratdolt, and we fail to find any trace of connection between the press of Ratdolt at Venice, and the work in progress at that time in Augsburg. It is curious, also, that Zainer was one of the first of the German printers to use wood-cut, or more probably metal initial letters, but here again we can discover no resemblance between his designs and those of Ratdolt. As early, however, as

I am indebted to a correspondent for the information, that the Roman type used by Müller at Nuremberg, resembles in certain respects that employed by Ratdolt, and that the ornament found in the works of Müller is distinctly in the pen and ink manner, and bears traces of Italian rather than German influence. This is another link which tends to strengthen my hypothesis as to Ratdolt's connection with this author and printer.

1473, we find books by Zainer, as, for instance, the "Historia Scholastica" of P. Comestor, in which such letters are profusely employed.

Writers on the art of printing in Italy have been vastly puzzled to account for the excellence of the ornamental work of Ratdolt's press. Butsch says, "No one can imagine that a stranger so recently arrived from Germany, a country still deeply imbued with the forms of Gothic art, even were he himself an artist, could, in the shortest possible space of time, make himself so entirely familiar with the details of what was to him a new style as to produce the admirable and finished designs which adorn the first examples of Ratdolt's press. It is far more reasonable to conclude that Ratdolt, as a shrewd speculator, conceived the idea of having ornaments drawn and engraved, similar to those so abundantly found in the manuscripts of that date, so that they might be multiplied by the printing press, and that he then carried this plan into execution."

Perhaps this is the place where mention should be made of Bernardus Pictor, about whom speculations of the most fanciful kind have at times been prevalent. People jumped at the idea that "pictor" stood for painter; that we have here the artist of the firm; and that all these beautiful designs were due to the accomplished hand of Bernardus. Much more than this, since it is easy to trace a resemblance between certain of the illustrated works of Ratdolt and the famous wood-cuts which adorn the "Hypnerotomachia Poliphili," wherein two of the wood-cuts bear the mark of a minuscule b, these designs are gravely attributed to Bernardus. I am afraid that I was at one time a believer in this theory, but I have been compelled to abandon it for many reasons, chief among which is the fact, that in the German edition of the Calendar issued in 1478, entitled "Das Büchlein Kalendarius durch M. Johan von Küngsperg," Bernardus Pictor is styled Bernhart Maler, and "Maler" is a common German surname. Moreover Butsch points out that when Bernardus printed for himself, in 1478, his work shows no traces of the refinement and beauty which characterize that of Ratdolt. Butsch, from the fact that Maler was a native of Augsburg, qualified, however, by a reference in Bucher, which I have not been



WALCH.

A Clementa pe ciulta sincly ta condificaut pon amplică curea la tagaiano. 450. nen a pastozib îcut Roma: 13 a potentiozib a potentiozib a potentiozib a potentiozib a potentiozib a cultară aduenia: allicippi psecuriozatule ofugictib aliulia preconio: potuste a tot tâch duceria vibui a oppido psecurio potuste a tot tâch duceria vibui a oppido psecurio potuste a tot tâch duceria orie psecurio acutate: p âno a mille cu tali incremeto acuta specurio predoze presentinuo la gazeitate ofuare.



RATDOLT.



WALCH.



RATDOLT.

PLATE IV.

CUTS OF VENICE FROM EDITIONS OF THE "FASCICULUS TEMPORUM" BY WALCH AND RATDOLT, WITH THEIR INITIAL GS.

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able to consult, concludes that the decorative work of Ratdolt's press owes nothing to Bernardus Pictor.

Dr. Lippmann, on the other hand, inclines to the belief that Ratdolt was indebted for his artistic work to his comrades, but he also suggests the possibility of some co-operation between Ratdolt and Jacob Walch, the eminent artist and engraver, also known as Jacopo de' Barbari, because they both used the same mark, the "Mercury." To the best of my belief, however, Ratdolt did not employ this "Mercury" mark until after his return to Augsburg. I have reproduced (pl. 10) an example of it from the "Concordantia Astronomiæ cum theologia" of Peter de Alliaco (Cardinal Pierre D'Ailly), dated 1490. The edition of this famous work printed by Ratdolt would seem to be the Editio princeps, and the only one issued during the fifteenth century.

Lippmann devotes much space to the identification of the abovementioned Jacob Walch, partly because he is spoken of by Dürer in his diary, and he calls attention to the fact that another Walch, whose christian name was Georg, printed at Venice from 1479 to 1482.

It is worthy of notice that this Georg Walch published an edition of the "Fasciculus Temporum" in the year previous to the first edition of the work by Ratdolt, and this book, which has escaped the notice of Dr. Lippmann, as also that of Butsch and other writers, robs Ratdolt of one of the improvements in Rolewinck's chronicle, for which he has hitherto been extolled. Walch's edition of the "Fasciculus" contains on the verso of page 37 an undoubted view of Venice, which, though it is not so accurate as that given in Ratdolt's "Fasciculus" of 1480, certainly has the merit of priority if the date in the colophon, 1479, is correct. I append facsimiles of both of these interesting wood-cuts (pl. 4), the earliest known views of Venice; it is probably to Walch's engraving that Dr. Lippmann alludes in his account of the Venice wood-cut in the "Supplementum chronicarum" of Jo. Phil. Forestus, commonly called Bergomensis, printed by Bernardinus Benalius in 1486. A careful comparison of the work of Walch with that of Ratdolt cannot

fail, I am afraid, to convict the latter of plagiarism. Not only has Ratdolt followed in every detail the edition of Walch, even to imitating the capital letter at the commencement (the G, which I have reproduced in both cases), but he likewise follows the style of imposition and the pagination of the work throughout. It will be seen that the decoration of the G of both printers is apparently designed by the same hand (see pl. 4).

The best account I have been able to find of the different editions of the "Fasciculus" is that given by Dr. R. Muther in his "Deutsche Bücherillustration der Gothik und Frührenaissance." He enumerates as many as eleven German editions up to and including that of 1480; of these, three contain no indication of place or printer, seven belong to Cologne, and only one to Speyer. He considers himself therefore justified, on these somewhat slender grounds, in attributing the three anonymous editions to Cologne typographers. He speaks of this work as follows:—"The book has in every one of these editions ten small wood-cuts" (which he proceeds to enumerate), and he indicates the sequence of the eight named editions, with the dates down to 1480, which last was printed, as was also that of the previous year, by Heinrich Quentel of Cologne. This printer has the merit, he tells us, of having added to the stock of wood-cuts that of the Adoration of the Magi.

Muther says, "These wood-cuts are among the rudest extant. The outlines of the separate figures are represented in the most feeble manner possible. A little picture, a few centimetres in height, consisting merely of a group of towers, serves on one page to depict Rome, on another Trèves, on a third Athens, and on the fourth Cologne or Jerusalem; the figures are wretchedly drawn." To judge from one of these editions, issued by Conrad Winters or, as he is styled in the colophon, de Hoemborch, in 1476, the sixth of the series, as arranged by Dr. Muther, this description is fairly, though not entirely accurate, for the view of Cologne given by Winters on the verso of folio 23, has some pretensions to pictorial correctness. We trace even at this date the unfinished spire of the cathedral, with the crane at the top, where it

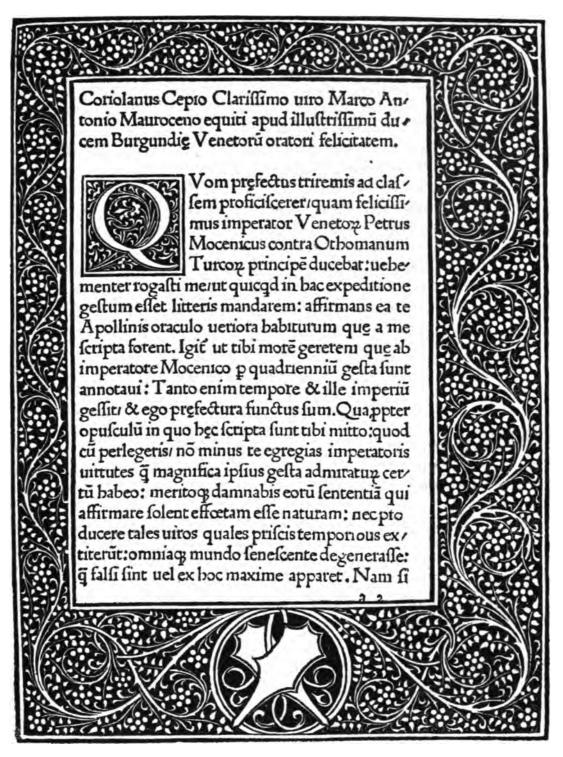


PLATE V.

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PLATE VI.

was destined to remain for so many centuries, and there is evidence of some attempt to represent the city as it then was.

This mention of the "Fasciculus" has, however, come in prematurely, and I must revert to the year 1477, during which Ratdolt and his companions were engaged upon the production of some of their choicest books. In 1477 we have the magnificent edition of Appian's Roman History in two volumes quarto, the "History of Peter Mocenicus," by Coriolanus Cepio, the treatise "De situ orbis," by Pomponius Mela, and that on the same subject by Dionysius. All of these works are printed with the beautiful types used for the "Kalendarium." They are plentifully enriched with initial letters, sometimes printed in red ink, and they have all of them the gracefully designed title-borders for which the books of Ratdolt are so deservedly famous. I am able to include a facsimile of the border employed in the Cepio, and which served also for the editions of the Mela and the Dionysius (see pl. 5). Another border, which I think is undoubtedly due to Ratdolt, and which was probably used for several of the smaller tracts issued by him prior to 1480, is found in the "Ars Moriendi" of Capranica, here reproduced from a copy in the Bodleian Library (see pl. 6). Time will scarcely permit me to linger over the description of these masterpieces of the art of printing. To my mind there are few printed books of any age which can be compared with the Appian of 1477, with its splendid black ink, its vellum-like paper, and the finished excellence of its typography. I remember the surprise expressed by an eminent bookseller at the price obtained in a London sale-room within the last seven years for a copy of the work in fine condition (I think the price was nine guineas), and his remark at the time, that this was three or four times the trade value of the book in question. It only served to show how entirely book prices are a matter of fashion, and how much booklovers fall into certain distinct grooves in the valuation of the best productions of the past.

I have illustrated (on pl. 1) the more important of the two fine borders to the Appian. The other border appears again in the Euclid of 1482. I may remark concerning the edition of 1477 of the Pomponius Mela, that it resembles that of the following year in every detail, and therefore destroys the charge brought by Brunet against Ratdolt, of having counterfeited the 1478 edition of Franz Renner of Heilbronn. Brunet says concerning Ratdolt's edition of 1478, "Cette édition est faite sur celle de 1478 de Renner de Hailbron." Ratdolt's edition of 1477, may, however, have been a copy of the authentic edition of 1478 with the last figure erased. It will be evident, even if this is the case, on comparing the Mela, printed by Renner with that of Ratdolt, that Renner, not Ratdolt, was the imitator. Chief among other points which bear out this theory is the absence in the copy by Renner of marginal notes in the space occupied by Ratdolt's ornamental border, namely, on the recto of the first leaf. This book of Renner's is in many respects a wonderfully close imitation of Ratdolt's work, even the initial letters are, with one exception, faithfully reproduced, and we have the same beautiful type and the same clever use of rubrication. The initial letter A at the beginning of the second book is printed in red by Ratdolt, but Renner prints it in black. Renner reverses the first initial letter, O; the second O is different in design from that used by Ratdolt; the pagination is the same throughout. In the edition of the Dionysius printed by Renner, likewise in 1478, which is doubtless a counterfeit of Ratdolt's work, the initial letters are reproductions of those used by Ratdolt, and a similar resemblance may be traced. I have also a work by Renner of this same year, containing the "Tractatus de Spera" of J. de Sacrobusto, and the "Theorica Planetarum" of Gerardus Cremonensis, which must, I think, be founded on another of Ratdolt's books.

The "Fasciculus Temporum," of which I have already spoken, is the first instance, I believe, of the considerable use of wood-cuts by way of illustration by this printer. I cannot give him much credit for improving here on the designs of his predecessors. His Noah's Ark is a stately vessel of the well-known nursery type, but all the Arks bear a strong family likeness. It is a curious mistake into which Dr. Muther falls, when he calls this wood-cut the Ark of the

Covenant (Bundeslade), but he errs along with several other writers.

For some unexplained reason, during, or immediately after the year 1478, Ratdolt and his fellow-workers dissolved partnership, and Ratdolt's name alone appears in the colophon of all works subsequently printed by him. For many interesting facts about business relations in the nature of partnerships, extant in Venice during this period, I may refer the curious to Mr. Brown's book. Nowhere can I find any record of the circumstances which led to the disruption of this particular firm. Ratdolt does not seem quite clear about the spelling of his own name when he lost the services of his "corrector," Löslein, for in the "Fasciculus" he is styled Rodolt. Ratdolt seems to have retained most of the working plant, the woodcut borders and initial letters, and the beautiful fount of types, for Maler and Löslein, both of them, I believe, employed Gothic type when they printed for themselves.

I used the word wood-cut when speaking of the borders and initial letters, though some very excellent authorities have stated that Ratdolt's borders and initials were cut in soft metal, and he is credited by Butsch with having made use of clichés, an invention which is generally believed to belong to a much later period. The attribution to him of this latter innovation rests on the fact that in the second volume of the Appian one of the designs of the initial letter L occurs twice, once on the recto, and once on the verso of leaf A3, in an absolutely identical form. Butsch, however, has forgotten that the recto and verso of a leaf cannot be printed at one impression, and that therefore the same block would be available for use in each case, while the fact that the three examples of the L which occur on one page are all of them different makes against his theory.

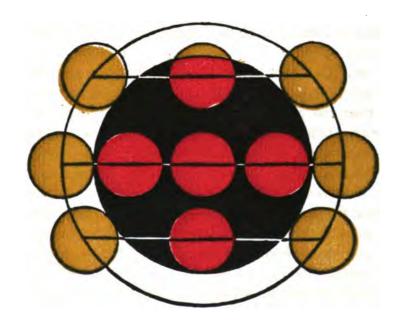
Butsch maintains likewise that the ornament found on the titlepage of the Calendar of 1476 was engraved on metal, but I am unable to see why this should not have been printed from a wood block. From certain injuries to the margins of the letters, and from the signs of wear in the borders, I am inclined to think, that wood-cuts, and not *clichés* or metal blocks, were used in every case.

In the course of the year 1482, Ratdolt issued several of his most remarkable productions; among them the foremost place is due to the Euclid, with its beautiful border and admirable diagrams. It constitutes the first attempt to illustrate the text of this author with wood-cuts of the problems, and it must ever be memorable for the skill and enterprise it displays in the accomplishment of what must at that time have been a most difficult task. The illustrations consist of admirably engraved wood-cuts of great delicacy and intricacy. The entire work comprises 138 leaves, the last blank, and there are in all upwards of 420 wood engravings, excluding about 200 which may be formed from lead lines.

The dedication of the work, which is to the Doge, John Mocenico, is often wanting, as it is contained on a preliminary leaf. In the example of this work in the British Museum, as also in a copy in the City Library of Augsburg, this dedicatory letter is printed in gold, and this is, I believe, the first instance of the use of the precious metal in typography.

Ratdolt was the first printer to employ several coloured inks simultaneously, if we exclude the doubtful versal letters of the 1457 Psalter of Fust and Schöffer. It has been asserted by some of the best authorities, that these initial letters were printed at one operation by means of mortise-blocks, capable of being separately inked, and then inserted one within the other. Didot terms this operation embolitage. If this were really the mode of their production, the skill of these first printers would indeed excite our amazement. Dr. Lippmann supports this theory, but Mr. Weale has proved that only one block and one coloured ink were used in the printing of these letters, the interior filling, in a different coloured ink, being obtained by a subsequent process of stencilling. This Mr. Weale was able to demonstrate satisfactorily, because in the Althorp copy of the Psalter, which came under his notice in the Historical Music Loan Exhibition

diogonalis quadranguli cui latera lit diverlitates aspectus in longitudine & latitudine. Diverlitas aspectus lune ad sole est excessus diversitatis aspect Lune sup diversitate aspectus solis Si vera coiunctio luminaris suerit inter gradum ecliptice aspectus dente & nonagesimi eius ab ascendente: visibilis eori coiun/cuo precessit veră. Si aute inter eunde nonagesimi & gradis oc cidente suerit: visibilis veră seques. Sed si in eode gradu nona gesimo acciderit tuc simul visibilis coisictio ci vera siet nullace diversitas aspect in longitudine cotinget. Nonagesimo nance gradus ecliptice ab ascendete semp e in circulo p zenito & po/los zodiaci pcedete. Latitudo lune visa e arcus circuli magni THEORICA ECLIPSIS LVNARIS.



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in 1885, the stenciller had begun with the wrong colour, and had completed the work with a different ink. This error occurs in a 2-line D on the verso of folio 95, and such a mistake would manifestly be impossible in the case of a process of block printing.

Ratdolt was undoubtedly the first printer who introduced the use of coloured astronomical diagrams, some fine examples of which are found in the "Sphæricum Opusculum" of 1485, and in the "Compilatio Leupoldi" of 1490. As Dr. Lippmann points out, his printer's mark of the "Mercury," to which I have already alluded, is another example of printing in two colours (see pl. 7, 8).

To revert however to the Euclid, a splendid book with very wide margins, upon which are placed the wood-cut diagrams. The recto of leaf A2, is, as already stated, surrounded on three sides with the wood-cut border found in the second volume of the Appian. Two different sizes of Gothic type, both of them considerably larger than that used for the "Fasciculus," are employed in this book. The typography is characterized by extreme neatness and accuracy, and great care was evidently taken to make this edition worthy in every way of the Ratdolt press.

The same year, 1482, witnessed the production of one of the most quaint works we owe to this printer, the "Oratoriæ artis epitoma," of Publicius, which contains a considerable number of wood-cut illustrations, notably the remarkable mnemonical diagrams of initial letters, composed of common objects and utensils; these occupy no less than seven pages. I possess only the 1485 edition of this work, which is in Roman type, whereas that of 1482 is in Gothic letter, and the diagrams are differently arranged. On the verso of leaf H1 in the 1485 edition is a representation of nearly nude male and female figures, said to be one of the first examples of undraped figures in a printed book. A fount of Roman type differing from that of 1476 is used in this later edition.

The "Poeticon astronomicon clarissimi viri Iginii," of the year 1482, comprises a still more remarkable series of wood-cuts, forty-seven in all, among them the earliest known representations of the constellations, and reduced figures of the planets, taken from the

German "Planeten-Buch" of 1468. I append a facsimile of a page of this edition with the singular figure of Orion in armour. Dr. Lippmann is far from complimentary in his reference to Ratdolt's designs in the "Fasciculus," and in the cuts of the "Astronomicon." He says of the former work, "Ratdolt's Venetian impression differs in no way from the rest;" which he describes as wholly inartistic, and he says, "his work in the astronomical poem of Hyginus is equally bad." To my mind, however, there is a vigour and quaintness about these wood-cuts which merit recognition.

To this work are appended some Latin verses by I. Sentinus and I. Santritter, of Heilbronn, who assisted Ratdolt in its preparation. Santritter was not only an author and a poet, but also a brother printer. He is sometimes spoken of as "de fonte salutis" a Latinised form of Heilbronn. He appears to have been a learned mathematician, and his skill in astronomy was invoked by Ratdolt in this and perhaps in other publications. He worked as a printer, in partnership sometimes with Hieronymus de Sanctis, as in the case of the counterfeit issue of Ratdolt's edition of the treatise "De Sphæra," by I. de Sacrobusto, to which I shall refer later; at other times with Dietrich of Würzburg. He is said by Dr. Falkenstein to have taken Ratdolt's place as a mathematical printer, after he left Venice, and to have carried on the work for which Ratdolt had made himself so famous. There is a subsequent edition of the "Alfonsine Tables," printed by him, and he revised and improved the text of this work. His reputation as an astronomer, and a man of letters, was perhaps greater than as a printer. Santritter seems to have had certain of Ratdolt's wood-cuts in his possession after that printer left Venice, but so also, as we shall see later, had Thomas de Blavis.

The letter-press of the Hyginus of 1482, as will be seen from the illustration, is in Gothic type, similar to that of the Euclid, but larger than that used in the "Fasciculus," and at this period Ratdolt must have been indeed busy, for not less than eight works, some of them of a most elaborate character, were produced in the course of 1482, among them being new editions of the Dionysius, and the Mela, in one volume, and of the "Kalendarium."



Rion:bunt a zona e reliquo corpore equinòctialis circulus vinidit, di tauro vecerranté collocatii: ve/ pera manu dana tenenté e inductii enfe; specumé ad occasium: e occidenté exonta scorpionis posterio re parte e sagictario exoriète: cii cancro autem toto

corpose pariter exangenté. Il sie babet in capite stellas tres daras. Ju vrifag bumeris singulas. In cubito vextro oblantá vnam. Ju manu similan vnam. Ju sona tres. Ju eo que gladius eius vesos matur tres oblanas. Ju vrisag gênibus singulas daras; Ju pedi bus singulas oblanas. Omnino sunt vecé e septê.



PLATE VIII.

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The only other work of this year of which I am able to give any special particulars was the "Sphæricum Opusculum," of J. de Sacrobusto, in quarto. Certain editions of this book contain, as we have seen, some of the earliest examples of polychrome printing, but the astronomical diagrams, which in the 1485 edition are printed in three colours, are in this edition hand-coloured. The letter-press here is in Gothic type, but Roman type was used in the 1485 edition, also in the "Chronicle" of Eusebius of the year 1483, and in the "Alchabitius" of 1485.

Concerning the treatise on the Sphere, I think a few notes may be of interest. This is really a collection of works, in that it consists of (1) the "Sphæricum Opusculum" of Sacrobusto; (2) the "Disputatio Ioannis de Monteregio contra Cremonensia," set forth in the form of a dialogue, and (3) the "Theoricæ novæ planetarum Georgij Purbachij." This last work contains numerous beautiful wood-cut diagrams. The colophon reads, "Impressum est hoc opusculum mira arte et diligentia Erhardi Ratdolt Augustensis. 2. Non. Julij. Anno Salutis. 1482." As there is here no mention of Venice, Zapf and other writers have placed this book among the works printed at Augsburg, and much confusion has been caused by this mistake. Thus Zapf states, "Sunt alii quoque et hos inter nominatim Hæberlinus quidam, qui contendunt non solum anno 1483, sed etiam jam anno 1482, Erhardum Augustæ libros vulgasse et ad asserti sui confirmationem non tantum supra memoratum Kalendarium Jo. de Monteregio sed insuper 'Joann. de Sacrobusto sphæricum opusculum allegant,' quod posterius Augustæ in 4to. anno 1482, excusum ferunt."

In the 1485 edition of the "Sphæricum Opusculum" Ratdolt has, as we have already mentioned, introduced for the first time coloured astronomical diagrams, some of which are of great merit, printed from blocks. We have reproduced one of these illustrations, namely, that appended to the "Theorica eclipsis lunaris" on the verso of folio 35; it will be seen that both red, yellow, and black

^{1 &}quot;Annales Typographiæ Augustanæ," f. xxxix.

inks have been employed, and white lines on a black ground are used with good effect (see pl. 8). The three treatises are here placed in a different order from that of the 1482 edition, for the "Disputatio" comes last. Here again there is no mention of Venice in the imprint.

I have spoken specially of the "Sphæricum Opusculum" because it was one of the works counterfeited directly after Ratdolt left Venice, and I possess the edition of 1488, printed by I. Santritter, of Heilbronn, and also another pirated Ratdolt of the same year, namely the Hyginus, printed by Thomas de Blavis; the latter of these printers seems to have become the owner of certain of Ratdolt's initial letters (much worn and deteriorated), but not of his woodcuts, for the illustrations of Blavis are reversed copies badly traced from the originals. I have, in consequence, been led to think that this printer had some business connection with Ratdolt.

I have many later editions of the Hyginus, all of them having illustrations borrowed from those of Ratdolt, and the same blocks are often employed to illustrate the various editions of Manilius. In 1483 the chief works of interest were the famous "Alfonsine Tables" and the "Chronicle" of Eusebius; the latter book is remarkable for the extensive use of rubrication. Under the date of 1476 there occurs in it a notice of the death of Monteregio, and of Ratdolt's Venetian Kalendar.

During 1485 there was again great activity in Ratdolt's office, and many books belong to that year. Among them I may mention the second editions of the "Sphæricum Opusculum," already alluded to, and the Publicius; also the "Libellus Ysagogicus Abdilazi," which is interesting because the work itself is printed in Roman type, and the commentary, by Johannes de Saxonia, is in Gothic.

I know of no work by Ratdolt which bears a Venetian date later than 1486. Mr. Weale points out that by a fortunate chance we are in possession of a large specimen sheet of types, issued by Ratdolt directly after his return to Augsburg in the above year. This folio sheet was discovered about ten years ago in the binding of an old book at Munich. It contains specimens of no less than ten different founts of Gothic type, varying from the largest to the smallest size, there are also three varieties of Roman type, and an extremely rude Greek character, fourteen founts of type in all. I am able by the courtesy of Dr. Burger, who has reproduced this extremely interesting document in his "Monumenta Germaniæ et Italiæ typographica," to append a facsimile (see pl. 9). The colophon fixes for us the time when Ratdolt prepared to begin his work at Augsburg, namely in April, 1486, only a month after his last Venetian date, though I have not been able to trace any Augsburg book printed before the "Obsequiale," mentioned by Zapf, which bears the date of February, 1487. The characteristic manner in which Ratdolt refers to his fame in Venice, and to his return to Augsburg, will not fail to be noticed, and nearly all his later colophons are couched in similar terms.

There appears in fact to be but one book with Ratdolt's imprint of the year 1486, namely, the third edition of the "Gran Missal," which is stated in the colophon to have been completed on March 18th. A facsimile of this colophon is given by Mr. Weale in his "Catalogue of the Historical Music Loan Exhibition of 1885." We may therefore assume, I think, that the process of removal from Venice to Augsburg caused an interruption in Ratdolt's work for nearly an entire twelvemonth. Perhaps the proof of types with the Augsburg imprint was prepared at Venice.

I do not propose to deal with the productions of this famous printer in his new home. He appears to have set to work at once upon the missals, breviaries, and clerical books of the diocese, which issued from his press during the next twenty years in rare profusion. He brought back with him to Augsburg, as we have seen, many of his wood-cuts and initial letters, and he produced fresh editions of most of the works which had first seen the light at Venice. His printing was henceforward mostly in Gothic type, and certain of his works lack the care and finish bestowed upon all that he did at Venice. Thus the "Sermones" of R. Caracciolus de Litio, printed by him in 1488, would scarcely be recognized by

some as the product of his press. This work, by the bye, contains one of the blocks used in the "Fasciculus" of 1480 (Note A, No. 5).

I possess a copy of the rare Almanack of 1488, several previous editions of which had been printed at Venice, and the "Compilatio Leupoldi," which contains some admirable astronomical diagrams, and is entitled to rank among his best productions. His "Hungarian Chronicle" of 1488 is justly famous, and many of his Church books produced at Augsburg are models of the printer's art.

I have thus endeavoured to bring under your notice a few brief details of the life and activity of one of the most wonderful masters of the art of printing during the fifteenth century, and I shall be glad if I have in any way succeeded in attracting fresh interest and attention to some of the many beautiful books we owe to Erhard Ratdolt.





BIBLIOGRAPHY

OF

ERHARD RATDOLT

AT VENICE.

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BIBLIOGRAPHY.

T has been thought unnecessary in the following list of books printed by Erhard Ratdolt at Venice to repeat, as a rule, descriptions given by Hain, or to give references to other copies of books contained in the British Museum, Bodleian, Cambridge University Library, or Spencer collections. The following abbreviations are used, besides those in ordinary use for leaves, lines, etc.

B.S. Dibdin, Bibliotheca Spenceriana (cited by volume and number).

Bibl. S. Gen. Daunou, Cat. des Incunables de la Bibliothèque SainteGeneviève. 1892.

Bibl. Maz. Marais and Dufresne de Saint-Léon, Cat. des Incunables de la Bibl. Mazarine. 1893.

Bologna. Caronti, Gli Incunaboli della Bibl. Universitaria di Bologna. 1889.

Maittaire, Ind. The Index to Maittaire's Annales Typographici.

Denis, Suppl. Supplementum Annalium M. Maittaire. 1789.

Denis, Merkw. Merkwürdigkeiten der k. k. Garellischen Bibliothek am Theresiano. 1782.

Zapf. Augsburgs Buchdruckergeschichte. 1786.

Gras. Verzeichnis typographischer Denkmäler... welche sich in der Bibl.... zu Neustift... befinden.

Strauss. Opera rariora... in Bibl. Collegii Canon. Regularium in Rebdorf. 1787.

Types.

- 1. 1476 (No. 1). Pl. 1, 2, 5, 6. Roman type. Not in the 1486 sheet of types (Pl. 9).
 - 1B. 1478 (No. 14). Type 1 with a different d (3) 3 w δ ũ added.
- 1476 (No. 1). Minute Gothic type. Used only in the Table of Movable Feasts in Nos. 1, 2, 14. Not in Pl. 9.
 2B. Greek type. 1477 (No. 6). Pl. 9, No. 14.
- 3. Nov. 25, 1478 (No. 15). Pl. 8. Gothic type. [In 1487 used by J. Otmar at Reutlingen.] Not in the type-sheet.
- 4. Nov. 24, 1480 (No. 17). Gothic type. Pl. 9, No. 7.
- 5. May 5, 1481 (No. 18). Large Gothic type. Not in the type-sheet.
- 6. Dec. 21, 1481 (No. 21). Minute Gothic type. Pl. 9, No. 10.
- 7. (Jan. 16) May 7, 1482 (Nos. 24, 26). Gothic type. Pl. 9, No. 5.
 - 78. May 7, 1482 (No. 26). A few Roman capitals used as headlines.
 - 7c. Aug. 9, 1482 (No. 29). Gothic type. A few letters used in a diagram. Not in the type-sheet.
- 8. Sept. 13, 1483 (No. 36). Pl. 7. Roman type. Pl. 9, No. 12.
- 9. Aug. 2, 1484 (No. 45). Large Gothic type. Pl. 9, No. 3. This, or a type exactly copied from it, afterwards belonged to A. Koberger at Nürnberg.
- 10. Jan. 22, 1485 (No. 48). Gothic type. Pl. 9, No. 9.

Borders.

- 1. 1476 (No. 1). Pl. 2. Open work, in five pieces.
- 2. 1477 (No. 3). Pl. 1. Large border of four sides in one piece.
- 3. 1477 (No. 4). Large border of three sides in one piece.
- 4. 1477 (No. 5). Pl. 5. Small border of four sides in one piece: two crossed shields.
- 5. 1477 (No. 6). Similar to No. 4, but one shield only, in a wreath.
- 6. 1478 (No. 8). Pl. 6. In size, etc., as No. 4. Acorn design: no shield, but a wreath.
- 7. Aug. 9, 1482 (No. 29). Same size. Interlaced pattern on black ground: one shield; poor work.

INITIALS.

- Set 1. 1476 (No. 1). Pl. 3. Open work.
 - 2. 1477 (No. 3). Pl. 1. Measures 48-49 × 42-43 millimetres. 9 ll. of type 1, 11 of 3 or 7.
 - 3. 1477 (No. 3). Pl. 5. $25-27 \times 23-24$ mm. 5 ll. of type 1, 6 of 3.
 - 4. 1477 (No. 5). $31-32 \times 27-29$ mm. 6 ll. of type 1, 7 of 3.
 - 5. 1478 (No. 11). Several alphabets. 19-22 × 19-21 mm. 4 ll. of type 1, 5 of 3, 6 of 4.
 - 6. May 25, 1482 (No. 26). S only. 13 x 7 mm.
 - 7. Jan. 16, 1482 (No. 24). Small Lombardic initials, occupying two lines of type 3.
 - 8. July 4, 1483 (No. 34). Larger Lombardic initials, occupying four lines of type 4, three lines of 8.
 - 9. July 4, 1485 (No. 51). Similar capitals, occupying six lines of type 4.
 - 10. 1485 (No. 56). Similar capitals, occupying five lines of type 4.

I. ERHARD RATDOLT, BERNHARD MALER, AND PETER LÖSLEIN.

1. Müller. Calendarium. 1476. Quarto.

Collation. [a⁵ b¹ ° c¹ +.] No signatures. 32 ff. 31 to 33 ll. to a full page. Types 1, 2. Printed in red and black.

Contents. Fo. 1 2, title [A in red]. 1 b-13 2, Calendar. 13b, Tabula regionum.
14 2-18 b, eclipses. 19, two diagrams with movable parts on stiff paper.

20 a-31 b, text and tables. 32 (diagrams) as 19, with brass pointers.

Illustrations. Border 1. Four large diagrams: sixty cuts of eclipses (many repetitions). Initials, set 1: ACEHILNPQU (Pl. 3). Large metal initial A, and KL.

References. Hain 13776. British Museum [C. 40. l. 25]. BS. VI. 1247. University Library, Cambridge.

2. Müller. Calendario. 1476. Quarto.

Collation. [a* b** c***.] No signatures. 30 ff. 34 to 37 lines to a full page.

Types 1, 2. Printed in red and black.

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Description. Fo. 1 a, title (Pl. 2) [Q in red]: QV esta opra da ogni parte e un libro doro. || [etc. 17 lines, l. 18 blank.] Venetijs. 1476. [Below in red]: Bernardus pictor de Augusta || Petrus loslein de Langencen || Erhardus ratdolt de Augusta || [fo. 1 b-13 a, calendar. 13 b]: LA TABVLA DI PAESI. [14 a-18 b, eclipses. 19, two diagrams, with movable parts, on stiff paper. 20 a-29 b, text and tables.] End so. 29 b l. 35: diligentemente composto & ordinato. [Fo. 30, two diagrams on stiff paper.]

Illustrations. Border 1: four large diagrams, as No. 1; sixty cuts of eclipses (the same). Initials, set 1: A E F L P (Pl. 3). Large metal initial Q, and K L. References. Hain 13789. British Museum [8562. e. 12]. Bodleian [Douce 207].

3. Appianus. Historia Romana. 1477. Quarto.

Collation. a-i ** k-n * o ** o . 132 ff. 32 ll., with marginalia. Type 1. The border on fo. 2 a is sometimes printed in red.

Contents. Fo. 1, blank. 2 a, preface of P. Candidus (Pl. 1). 3 a-132 a, text 132 b, blank.

Illustrations. Border 2. Initials, set 2: ACPR.

References. Hain* 1307 part 2. British Museum [C. 2. b. 15]. Bodleian
[Auct. O. iii. 30]. BS. I. 117. University Library, Cambridge.

4. Appianus. De bellis ciuilibus. 1477. Quarto.

Collation. a-c¹⁰ d¹² e-x¹⁰. 212 ff. 32, 33 ll., with marginalia. Type 1. The border on fo. 2 a is sometimes printed in red.

Contents. Fo. 1, blank. 2^a, preface of P. Candidus. 3 a, epitome. 4 a-212 a, text. 212 b, blank.

Illustrations. Border 3. Initials, set 2: CDIPS. Set 3: L, four designs. References. Hain* 1307 part 1. British Museum [C. 2. b. 16]. BS. I. 117.

5. CEPIO. Gesta P. Mocenici, 1477. Quarto.

Collation. a-f * g6. 54 ff. 23, 24, 25 ll. Type 1.

Contents. Fo. 1, blank. 2 a, dedication (Pl. 5). 3 a, text of book 1. 20 a, book 2: 36 b, book 3. Ends 53 b, line 17: l. 18 blank, 19, colophon: fo. 54 blank.

Illustrations. Border 4. Initials, set 3: DIQL. Set 4: Q.

References. Hain* 4840. British Museum [502. c. 18 (2)]. Bodleian [AuCt.

References. Hain* 4849. British Museum [592. c. 18 (2)]. Bodleian [Auct. 2 Q. vi. 43]. BS. VII. 64. University Library, Cambridge.

6. Dionysius. De situ orbis. 1477. Quarto.

Collation. a-ds e10. 42 ff. 23 to 25 ll., with marginalia. Type 1 and Greek type.

Contents. Fo. 1 a, preface of A. Becharia. 3 b, l. 7 to 39 b, text. 40 a to 41 b, table of provinces, in 2 cols. Fo. 42, blank.

Illustrations. Border 5. Initials, set 3: CHNSPTV. Set 4: D.

References. Hain* 6226. British Museum [C. 2. a. 15 (1)]. Bodleian [Auct. 2 Q. v. 11 (2)].

7. Mela. Cosmographia. 1477. Quarto.

This edition is said to differ from that of 1478 (No. 11) in no respect except the date, which is: M.CCCC.LXXVII.

References. Zapf, p. 154, from Maittaire, Ann. Typ. IV. p. 374. The existence of this edition was doubted by Krissmer.

8. Ars moriendi. 1478. Quarto.

B-- A- -- -

Collation. a b · o. 20 ff. 24, 25 ll. Type 1. The border, heading, and paragraph marks on fo. 1 a are printed in red.

Contents. Fo. 1 a, lines 1, 2, heading; 3, blank. Line 4 to fo. 20 b, line 8, text. Lines 9, 10, blank. 11-13, colophon. 14, blank. 15, date.

Illustrations. Border 6 (Pl. 5). Initials, set 3: C D N P S V.

References. Hain* 4392. British Museum [527. d. 3]. Bodleian [Auct. 4 Q. vi. 75].

9. Arte di ben morire. 1478. Quarto.

Collation. abc². 24 ff. 24, 25 ll. Type 1. The heading on fo. 12 is

printed in red.

Description. Fo. 12 [red]: Incominçia et tractato delarte di ben morire. | [line 2 blank] | C Onçio sia chossa chel pücto della | . . . End, so. 24 a, l. 24: E questo basti quato al tractato & arte di ben mo- | rire. Impressus Venetijs. 1478. Laus deo. | Fo. 24 b, blank.

Illustrations. Border 6. Initials, set 3: A C E S V.

References. British Museum [4404. g. 31]. Exhibition of Early Italian Art at the New Gallery, 1893-4. Catalogue, No. 1451^D.

10. Roman Breviary. 1478. Octavo.

Collation. 12 ff., unsigned: signatures from a: fo. 265 is signed x, fo. 453 is signed 14. 12 unnumbered, 483 numbered leaves, and one unnumbered leaf. 2 cols. 36 ll. Gothic type (2 or 5?). Printed in red and black.

Contents. Ff. 1-12, Calendar and tables: fo. 13, Inuitatoria: fo. 74 b, Ordo breuiarii: fo. 265 a, Secunda pars breuiarii: fo. 453 a, Commune san & Corum. References. Hain* 3897. Panzer III. 143, 370 (Denis, Suppl. p. 90: Zapf,

II. p. 255).

11. Pomponius Mela. Cosmographia. 1478. Quarto.

Collation. a-f^{*}. 48 ff. 26, 27 ll., with marginalia. Type 1. Headings printed in red.

Contents. Fo. 1 a, procemium, followed by text of book 1: 17 b, book 2: 34 b, book 3. End, 48 b, line 21. 22, blank. 23, colophon.

Illustrations. Border 4. Initials, set 3: A D. Set 4: O. Set 5: O.

References. Hain* 11016. British Museum [C. 2. a. 15 (2)]. Bodleian [Auct. N. v. 12]. BS. II. 384. University Library, Cambridge.

12. CELSUS MAFFEUS. Monumentum. 1478. Quarto.

Collation. 28 b10. 18 ff. 23, 24 ll. Type 1.

Description. Fo. 1 a [in red]: Suo Reuerendiffimo patri & Domino D. B. Ze no diuina miseratione Cardinali san act & Marie i porticu. Celsus Mapheus ueronensis ... Text begins: Incipit Monumentu compendiosum pro confessionibus Cardinaliu reliquoruq, preslator... [After the first trast]: Incipit eiusem aliud breue scrutatoriosu peccatoru pro coseffionibus. End: Explicit breue scrutatoriosum seu monumentu compendiosum pro confessionibus a Celso Malpheo ueronensi canonico regulari congestum. MCCCCLXXVIII.

Illustrations. Border [4 or 5?], printed in red.

References. Hain 10438. Bibl. S. Gen., No. 262. Bibl. Maz., p. 114, No. 196.

13. CELSUS MAFFEUS. Oratio pro Turcorum expugnatione. [1478.] Quarto.

Collation. as. 8 ff. 24 ll. Type 1. The heading on fo. 1 a is printed in red. Description. Fo. 1 a [red]: Pro facillima Turcorum expugnatione epistola. || [l. 2 blank] || Serenissimo Principi & Excellentissimo Domi—|| . . . [etc., 4 ll. (3-6): l. 7, black]: SI de tua Serenissime princeps sum || ma humanitate: singulariq, bene—|| . . . End, 8 a, l. 22: Valeat d faustissime. S. tua: cui nos resq. nostras || plurimum comendamus atq. tradimus. || Fo. 8 b, blank.

Illustrations. Border 4. Initial, set 3: S.

References. Hain 10444. Bodleian [Auct. 7 Q. v. 16 (6)].

II. ERHARD RATDOLT AND BERNHARD MALER.

14. Müller. Kalender. 1478. Quarto.

Collation. [as bro cra.] No signatures. 30 ff. Lines irregular. Types 1B, 2. Printed in red and black.

Contents. Fo. 1 a, title. 1 b to 13 a, calendar. 13 b, Tauel der lande vnd state. 14 a to 18 b, eclipses. Fo. 19, two diagrams on stiff paper. 20 a to 29 b, text. 30, two diagrams as 19.

Illustrations. Border 1. Initials, set 1: ADEHLNPW (Pl. 3). D in red as the A of No. 1 and Q of No. 2; also K L.

References. Hain* 13786. British Museum [8562. ff. 18]; misbound. Bologna, No. 721. Bernhard Maler also printed alone in 1478. See Hain 2694.

III. ERHARD RATDOLT.

15. MATARATIUS. Nov. 25, 14[7]8. Quarto.

Collation. a b³ c d⁶. 28 ff. 31 ll. Type 3, with e from type 1, and Greek. Lines 1 to 3 and 5 of fo. 2 a are printed in red.

Contents. Fo. 1, blank. 2 a, proem. 2 b to 26 b, Mataratius, de uersibus componendis. 27 a to 28 a, Jac. Sentinus, de quibusdam lyricis carminibus. 28 b, three epigrams by the same, and colophon dated 1468.

Illustrations. Initials, set 2: P. Set 5: A (2 forms), C (2 forms), D E (2 forms), I L M O (3 forms), P (3 forms), R S (2 forms), V (4 forms).

References. Hain* 10889. British Museum [625. e. 3]. Bodleian [Auct. 2 Q. v. 66].

16. JAC. DE CURTE. Oratio. [After May 23, 1480.] Quarto.

Collation. As signed by sheets. 8 ff. 31 ll. Type 3.

Description. Fo. 1 a: Ad magnificū spectabilemą. J. v. d. dominū Franciscū de curte. || [line 2, blank.] || Aduersus vrbem collosensem quid actum sit per ymanissimos tur-||cos. . . . End, so. 8 a, line 9: proposuj. || Oratio edita per reuerendum fratrem Jacobum || de curte ordinis Augustinensium. || Impressum Venetijs per magistrū Erhardum radtolt de Augusta || Fo. 8 b, blank.

References. Hain* 5868, 5869. British Museum [C. 5. a. 22].

17. Fasciculus temporum. Nov. 24, 1480. Folio.

Collation. [As a-hs i*.] No signatures. 8 unnumbered and 68 numbered leaves. 58 ll. in table: 49 ll. on fo. 9 [1] a. Type 4.

Contents. Fo. 1, blank. 2 a to 8 b, table in 3 cols. 9 a-10 a, proem. 10 b to 76 a,

text. 76 b, blank.

11

Illustrations. Numerous small and five large diagrams. An initial G not belonging to any set (Pl. 4). Set 3: S. For other illustrations see Note A.

References. Hain* 6926. British Museum [581. i. 23], wanting fo. 26. On fo. 20 b is the impress of a type which has fallen across the page. Bodleian [Douce 233].

18. BAPT. DE SANCTO BLASIO. Legal tracts. May 5, 21, 27, 31 and June 2, 1481. Folio.

Collation. (i.) 4 ff. unsigned, 22 ff. signed a-c. (ii.) A A6 B B8, 14 ff. (iii.) A8, 8 ff. (iv.) a a, b b6 c c8, 20 ff. (v.) A a6 B b8, 14 ff. 2 cols. 63 ll. Types 3 and 5. The first initial of part 1 is printed in red.

Contents. i. Fo. 1, blank: fo. 2 a to 26 b, Tractatus de actionibus.

- ii. Fo. 1 a, col. 1: Tractatus de priuilegiis dotalibus. End, 14 b, col. 2, l. 48. 49, 50, blank. 51 to 59, subscription. 60, blank. 61 to 63, colophon.
- iii. Fo. 1 a, col. 1: Tractatus correlatiuorum. End, 8 b, col. 2, l. 15. 16 to 18, blank. 19 to 30, subscription. 31 to 33, colophon.
- iv. Fo. 1 a, col. 1: Tractatus centum quaestionum inter arbitrum et arbitratorem. End, 20 b, col. 2, l. 35. 36, blank. 37 to 44, subscription. 45, blank. 46, 47, colophon.

v. Fo. 1 a, col. 1: Repetitio super rubrica Vltra scripta per alios. End, 13 b, col. 2, l. 46. 47, blank. 48 to 52, subscription. 53, blank. 54 to 56, colophon. Fo. 14, blank.

Illustrations. Initials. Set 2: (part i.) I; (ii.) Q; (iii.) I; (iv.) I; (v.) I. Set 5: (part i.) ...?; (ii.) I; (iii.) IV; (iv.) CDN [6 forms], O [4 forms], P Q [6 forms], S [6], T [4], V [4]; (v.) D [3 forms] NOQRST.

Also plain Roman D (v.) and T (iv.) in outline, used when the supply of the ornamental initials fell short.

References. Hain* 3237. British Museum [500. k. 12], parts 2 to 5 only. Bodleian [Auct. 3 Q. iii. 33], part 5 only.

19. PAULUS PERGULENSIS. Logica. Sept. 13, 1481. Quarto. Collation. Unknown. 58 ff.

Contents. Fo. 1 a: Compendium perclarum ad introductionem in facultate Logice perclarum Artium doctorem ac Theologie professorem Magistrum Paulum pergulensem nuperrime compilatum. End: (couplets by Jac. Sentinus in honour of the author and printer; then) Impressum uenetiis idibus septembris Anno salutis M. CCCC. LXXXI.

References. Panzer III. 167, 519, refers to a copy in the public library at Nürnberg.

20. Donatus. Oct. 21, 1481. Quarto.

Collation. Not known. Signatures. Gothic type.

Contents. Aelii Donati Grammatices Rudimenta. M. Catonis vtriusque virtutis instituta ad vitam adolescentulorum liberis artibus instruendam per C. Ioan. Lucil. Santreiter emendata. End [in red]: Erhardi ratdolt Augustensis perpolita arte impressa extant. XIL calen. Nouembris. Anno Salutis. M. CCCC. LXXXI. Venetiis. Soli Deo Gloria.

Illustrations. Wood-cut initials.

References. Hain 6378. Panzer III. 167, 520 (Denis Suppl., p. 132; Gras, p. 51; Zapf, p. 159).

21. Fasciculus Temporum. Dec. 21, 1481. Folio.

Collation. [A^a a-h^a.] No signatures. 8 unnumbered and 64 numbered leaves. Table, 3 cols. 55-58 ll. Fo. 9(1) a has 52 ll. Type 6.

Contents. Fo. 1, blank. 2 a-8 b, table. 9 a, proem. 10 a, wood-cuts. 10 b, text. End, 72 b. The text shows the date to be 1481, not 1480.

Illustrations. Small diagrams and one of the larger, as in No. 17. Initial G, as No. 17. Set 5: S. For other illustrations see Note A.

References. Hain* 6928. British Museum [9005. e. 28]. Bodleian [Douce 199]. BS. III. 694.

22. Calendar for the years 1476 to 1506. 1481. Quarto.

Collation. Unknown.

Kalendarium seu Almanach pro annis 1476-1506. End: Explicitum est hoc opus Anno christi domini 1481. Impressumque per Erhardum ratdolt augustensem venetiis.

Illustrations. Unknown.

References. Hain 4260. Panzer III. 167, 521 (Denis Suppl., p. 136).

F

23. CHIROMANTIA. 1481. Quarto.

End: Padue per Mattheum Cerdonis de Vindischgrecz Erhardi Ratdolt instrumentis. 1481.

Hain 4972. A doubtful edition. See No. 47.

24. Alchabitius. Liber isagogicus. Jan. 16, 1482.

Collation. a-d*. 32 ff. 31, 32 ll. Types 3 (mixed with a few capitals of 7), and 6. Heading on fo. 1 a printed in red.

Contents. Fo. 1 a, heading, 2 lines; a diagram, and 8 lines of text. End, fo. 32 b; colophon below a diagram.

Illustrations. Two diagrams. Initials, set 4: P. Set 5: E. Also set 7.

References. Hain* 616. British Museum [8610. cc. 6]. University Library, Cambridge.

25. ABRAHAM ABEN EZRA. De luminaribus et diebus criticis. Feb. 7, 1482. Quarto.

Collation. Unknown.

Begin: Incipit liber Abrahe Auenere de luminaribus et diebus Creticis.

End: Finit libellus Abrahe a Venere de luminaribus et diebus creticis: die: 7: Februarii: 1482.

References. Hain 22. Panzer III. 177, 586 (Denis Suppl., p. 160). "Videtur Erhardi Ratdolt."

26. Euclides. Elementa. May 25, 1482. Folio.

Collation. a 10 b-r². 138 ff. 45 ll. Types 3, 6, 7, and 7B. The heading on fo. 2 a is printed in red.

Contents. Fo. 1 a, blank. 1 b, dedication. 2 a, text. End, 137 b, l. 40. 41,

blank. 42-45, colophon. Fo. 138, blank.

Illustrations. Border 3. Very numerous diagrams of various sizes in the margins. Initials, set 2: CFILOPQSV. Set 5: several hundreds; ABCDEFILNOPQRST. There are used at least 2 forms of CEP, 3 of BDILNQ, 4 of R, 6 of O, and 10 of S. Set 6: S, 3 forms, used to supplement set 5 where more than 10 are required at once.

References. Hain* 6693. British Museum [836. l. 5 (2)]. Bodleian [Auct. K.

iii. 19]. BS. II. 234. University Library, Cambridge.

27. SPHABRA MUNDI. July 6, 1482. Quarto.

Collation. 2-g2 h4. 60 ff. 30, 31, 32 ll. Types 3 (with e from type 1), 6, 7.

The heading on fo. 2 a is printed in red.

Contents. Fo. 1 a, blank. 1 b, a diagram: Sphaera Mundi. 2 a, Jo. de Sacro Busto, Sphaera Mundi. 18 b, Jo. Müller, Disputationes contra cremonensia in planetarum theoricas deliramenta. 33 a, l. 20: Georg Purbach, theoricae nouae planetarum. End, 60 b, l. 9. A diagram, then colophon.

- Illustrations. Forty diagrams, of which 8 are hand-coloured. Initials, set 2: PST. Set 5: DHLMNOPQ.SV.
- References. Hain* 14110. British Museum [8560. dd. 10 (1)]. Bodleian [Au&. 2 Q. vi. 27]. University Library, Cambridge.
- 28. Mela. Cosmographia. July 18, 1482.
 - Collation. A-F³. 48 ff. 30, 31 ll. Types 3 (with e from type 1), 6, 7. The heading on fo. 2 a is printed in red.
- Contents. Fo. 1 a, blank. 1 b, map of the world. 2 a, heading, and text of Mela. End, 30 a, l. 21. 30 b, Prisciani interpretatio ex Dionysio de orbis situ. End, 48 a, l. 10. 11, blank. 12-15, colophon. 48 b, blank.
 - Illustrations. Initials, set 2: O N. Set 5: A D E N O S.
 - References. Hain* 11019. British Museum [C. 16. h. 9 (3)]. Bodleian [Auct. O. infra i. 15]. BS. VI. 1229. University Library, Cambridge.
- 29. MÜLLER. Calendarium. Aug. 9, 1482. Quarto.
 - Collation. [a' o b c' d' a.] No signatures. 28 ff. 29 ll. Types 6, a few letters of 4, 7, 7c. Printed in black and red.
- Contents. Fo. 12, ll. 1-4, heading; 5, poem by Jac. Sentinus, followed on fo. 1 b by a metrical colophon of J. L. Santritter, and date. Fo. 2 a, Tabula regionum. 2 b-14 a, calendar. 14 b-18 a, eclipses. 18 b-26 b, text. 27, 28, four diagrams on stiff paper.
 - Illustrations. Border 7. 48 diagrams of eclipses, smaller than in No. 1, printed in red and black. Four diagrams at end copied and reduced from those of No. 1. K L also smaller than in No. 1. Initials, set 2: H. Set 5: A C E H I L N P Q V.
 - References. Hain* 13777. British Museum [C. 16. h. 9 (4)]. Bodleian [Auct. 4 Q. v. 18].
 - 30. Hyginus. Poeticon astronomicon liber. Oct. 14, 1482. Quarto.
 - Collation. a-f³ g¹°, carelessly signed. 58 ff. 31 ll. Types 3 (with e from type 1), and 7. The heading on fo. 2 a is printed in red.
 - Contents. Fo. 1, blank. 2 a, ll. 1-5, heading; l. 6, Jginius. M. Fabio Plurimam Salutem ||; l. 7, text. Ends 57 a, l. 4; 5, blank; 6, Jacobus Sentinus Ricinensis Lectoribus foelicitatem ||: two poems, the second beginning 58 a, l. 1 (heading, ll. 1, 2; poem, ll. 4-17); l. 19, C. Johannes Lucilius Lectori Salutem: ||; ll. 21-30, verses containing the printer's name; l. 32, date and place. Fo. 58 b, blank.
 - Illustrations. Forty-seven cuts of constellations, etc. Initials, set 2: EIQ. Set 3: M. Set 5: ACDEGHILNOPQRSTVZ. Set 6: S.
 - References. Hain* 9062. British Museum [C. 16. h. 9 (1)]. Bodleian [Auct. N. v. 6]. BS. III. 717.

31. Publicius. Ars oratoria. Nov. 30, 1482. Quarto.

Collation. A-D² E⁶ a² b⁶ c d². 68 ff. 31 ll. Types 3 (with e of type 1),

6, 7, and Greek. The heading on fo. 2 a is printed in red.

Contents. Fo. 1, blank. Fo. 2 a, ll. 1-9, heading; l. 10, text. End, 38 b, l. 31. 39 a, Ars epistolandi (ll. 1, 2, heading; 3, blank; 4, text); end, 52 b, l. 31. 53 a, Ars memorie (ll. 1, 2, heading; 3, blank; 4 text). 59 b-63 b, cuts illustrating the alphabet. End, 67 b, colophon in 6 ll. below a cut. Fo. 68, blank, wanting. There is another issue of this edition, according to Hain, but his account of it is unintelligible.

Illustrations. Nine cuts, seven of which consist of six circular figures, and another represents a chessboard. Initials, set 2: H N S. Set 5: A B C D E H I

LMNOPQRSTV. Also set 7, 2s in No. 24.

References. Hain* 13545. British Museum [11805. e.]. Bodleian [Au&. 2 Q. v. 26].

32. MÜLLER. Ephemerides. [Not after 1482.] Quarto.

Collation. Unknown. Gothic type.

Contents. A letter from Erh. Ratdolt to the Duke of Urbino, who died in 1482. Other letters: Ephemerides, 9 chapters (the date 1476 occurs in chap. 6), 3 Canones, 5 Tabulae. At end, 9 couplets addressed by E. Ratdolt to the above-mentioned duke.

References. Hain 13797. Panzer III. 489, 2750 (Denis Merkw., p. 237, and Suppl., p. 649). See also Hain* 13803.

33. Benedictine Breviary. Apr. 30, 1483. Octavo.

Collation. Unknown.

Contents. Breuiarium Monasticum secundum consuetudinem Monachorum Uni tatis ordinis Sancti Benedicti, seu Congregationis de observantia Sanctae Iustinae. End: Castigauit me thomasius monachus setc.; see Hain].

References. Hain 3803. Panzer III. 188, 663. The Pinelli collection contained a copy on vellum.

34. Alphonsus. Tabulae astronomicae. July 4, 1483. Quarto. Collation. 2-18 m⁶. 94 ff. 41, 42, 43 ll. Type 4.

Contents. Fo. 1, blank. 2 a, ll. 1-3, heading, in red; 4, blank; 5, text; ends 16 b, l. 42. Tables, 17 a. Ff. 91-94 contain tables, text, and diagrams, mixed. End, 94 a, 94 b, blank.

Illustrations. Two diagrams. Initials, set 2: T. Set 5: CEGHILMNQ RTV. Also set 8: NL.

References. Hain 868. British Museum [8560, dd. 10(4)]. Bodleian [Auct. 7 Q. iv. 9]. BS. III. 609.

35. MÜLLER. Calendarium. Sept. 13, 1483. Quarto.

Collation, Signatures. 28 ff. (2 cols.) 42 ll. Gothic type. Printed in black and red.

Contents. Fo. 1 2, verses by J. Sentinus. 1 b, three couplets by J. L. Santritter, and date. 2 a, Tabula regionum. End, 26 b. 27, 28, diagrams.

Illustrations. Border. Diagrams. Wood-cut initials.

References. Hain* 13778.

36. Eusebius. Chronicon. Sept. 13, 1483. Quarto.

Collation. [A12] 2-v8 x10. 182 ff. 2 cols., 40, 41 ll. [type 4, text]: 34 long lines [type 8]: 38 long lines [tables]. Types 4, 8. Printed in red and black throughout.

Contents. Fo. 1, blank. 2 a, table of contents; ends 12 a, col. 1, epigram by J. L. Santritter. 12 b, 13, blank. 14 a, ll. 1-9, heading in red, followed by text, all in type 8. 21 a, text, in type 4. 26 b, the tables begin; end 181 b, l. 8. Three couplets by Santritter, and at bottom colophon in red. Fo. 182, blank.

Illustrations. Initials, set 2: AT. Set 3: E I M. Set 4: P. Set 5: A C I N Q S.

References. Hain* 6717. British Museum [858. h. 4]. Bodleian [Auct. K. iii. 20]. University Library, Cambridge.

37. Buch der zehn Geboten. 1483. Folio.

Contents. Fo. 1, blank. 2 a to 4 b, table. 5 a, ll. 1-10, heading in red (1, 2, in type 5; 3, blank; 4-10, in type 7); 11, blank; 12, text, in question and answer. End, 66 a; 66 b, blank. 67 a, "Sprüche" from various authors. End, 75 a, col. 1; col. 2, blank. 75 b, "Beclagung von einem sterbenden mensch." End, 82 a, col. 2, l. 34; 35, blank; 36-44, colophon; 45, blank; 46, Deo gracias. Fo. 82 b, blank.

Illustrations. Initials, set 2: DI. Set 4: W. Set 5: DI.

References. Hain* 4034. British Museum [3835. d.]. Bodleian [Auct. 2 Q infra i. 35].

38. Breviarium Brixinense. 1483. Quarto.

Hain 3811. Panzer III. 189, 668, from Denis Suppl., p. 165. A doubtful edition.

39. Fasciculus Temporum. 1483. Folio.

Hain+ 6933. Panzer III. 189, 667 (who believes in the existence of this edition), from Zapf, p. 163. Zapf refers to "Theoph. Sinceri [G. J. Schwindelii] Bibliotheca, p. 15, n. 177." According to Panzer, in this no printer's name is given. The whole is perhaps due to an error in reading the date of No. 43.

40. PTOLEMY. Quadripartitum opus. Jan. 15, 1484. Quarto. Collation. a-g² h¹². 68 ff. 2 cols. 42, 43 ll. Types 4, 6 (only on fo. 1 b). The heading on fo. 2 a is printed in red.

Contents. Fo. 1 a, blank. 1 b, a diagram. 2 a, col. 1, ll. 1-8, heading in red; l. 9, text. End, 46 b, col. 1. Col. 2, Liber centum uerborum, with the commentary of Haly. End, 68 a, col. 2, l. 41. Col. 2, ll. 1-3, subscription; 4, blank; 5-7, colophon. The rest of the leaf is blank.

4, blank; 5-7, colophon. The rest of the leaf is blank.

Illustrations. Two diagrams. Initials, set 2: DEPR. Set 5 (worn): CDEHILMOPORSTV.

References. Hain* 13543. British Museum [8560, dd. 10 (3)]. Bodleian [Auct. O. infra i. 55].

41. MÜLLER. Ephemerides. April 4, 1484. Quarto.

Collation. [a¹°.] No signatures. 10 ff. 2 cols. 38, 39, 40 ll. Types 4, 6 (on fo. 9 b only).

Contents. Fo. 1 a, blank. 1 b, Tabula regionum. 2 a, col. 1, ll. 1-3, heading; 4, blank; 5, text. End, 8 b, col. 2, l. 34; 35, blank; 36-38, colophon. Fo. 9, two diagrams. Fo. 10, blank.

Illustrations. Two diagrams. Initials, set 2: V. Set 5: Q S.

References. Hain* 13791. British Museum [532. c. 31]. University Library, Cambridge.

42. Advertisement. [Between Apr. 4 and May 28, 1484?] Folio.

A single sheet in 2 cols. Probably type 7. The headings are printed in red.

LIBRI VENALES/ VENETIIS IMPRESSI.

IN THEOLOGIA.

Moralia Nicolai de lira. [Hain 10375?]

Mammotrectus super totam bibliam. [Hain 10563?]

Soliloquia sancti augustini cum aliis .XXI. operibus. [Hain 1946?]

Biblia in charta magna,

Missalia parua secundum curiam sine notis.

Missalia parua sancti Dominici cum notis.

Breuiaria sancti Dominici.

Breuiaria secundum curiam.

Diurni secundum curiam.

Diurni sancti dominici,

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Questiones sancti Thome. [Hain 1404?]
 Quadragesimale roberti in paruo volumine. [Hain 4433?]
  Quadragesi. Fratris ambrosii. [Hain 920?]
 Legende sanctorum in paruo volumine.
 Summa Astensis. [Hain 1896?]
                               IN LOGICA.
 Scriptum fratris Geraldi odonis de ordine fratrum minorum supra librum ethicorum.
      [Hain 11968?]
 Posteriora Pauli Veneti. [Hain+ 2510?]
                     [IN HUM]ANITATE ET POETRIA.
 [Terentius cu]m donato. [Cf. Hain 15410-12.]
 [... cu]m commento,
 [Virgilius cum] seruio.
  [Pomponius me]lla de situ orbis. [Ratdolt; see No. 28.]
  [Isidorus de] summo bono.
  [... Vo]cabulista.
(Col. 2.)
  Martialis cum commento. [Cf. Hain 10815 sqq.]
  Nonius Marcellus. [Hain 11904?]
  Macrobius de Saturnalibus. [Hain 10427 or 10428?]
  Ouidius de Fastis cum commento. [Hain 12238?]
  Epistole ouidii cum commento. [Hain 12195?]
  Siluis italicus cum commento. [Hain 14739?]
  Franciscus mataratius de carminibus componendis. [Ratdolt; see No. 15.]
  Rhetorica Jacobi publicii Florentini: cum de arte memoriam discendi. [Ratdolt;
      see No. 31.]
  Eusebius de temporibus. [Ratdolt; see No. 36.]
                      In ture canonico et ciulli.
  [Decretum] magnum. [Hain 7900?]
  Ange[lus] de maleficiis. [Hain 1626?]
  Vocab[ular]ium iuris. [Panzer III. 194, 696?]
  Institut[a in] paruo volumine. [Hain 9513.]
                     In astronomia et geometria.
  Heuclides in geometria. [Ratdolt; see No. 26.]
  Tabule Alphonsi. [Ratdolt, see No. 34.]
  Liber quadripartiti Ptholomei: cum Centiloquio eiusdem: commentatum a Hali
      [Ratdolt; see No. 40.]
  Kalendarium Joannis de monte regio. [Ratdolt; see No. 36.]
  Almanach siue Ephemerides Joannes de monte regio. [Ratdolt; see No. 41.]
  Iginius de sideribus. [Ratdolt; see No. 30.]
  Spera cum Theorica Georgii Purbachii. [Ratdolt; see No. 27.]
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Copy. At Munich [Einblatt VIII. 5]. Reprinted in 1885 by Wilh. Meyer, Bücheranzeigen des 15. Jahrbunderts, No. 18. The above transcript is taken from this, with the addition of some further conjectural identifications of the books mentioned. It is quite possible that at least some of the liturgical books were printed by Ratdolt. The date of the sheet is fixed by the insertion of the "Ephemerides" of Apr. 4, and the omission of the "Fasciculus" of May 28, 1484. The type, according to Herr Meyer, is that which is previously often used by Ratdolt for headings, and in which [ff. or] pp. 102-116 of the "Augsburg Missal" of 1491 are printed.

In the next advertisement given by Herr Meyer (No. 19), the following books

were printed by Ratdolt:

Col. 2, No. 8.

Spera materialis Johannis de sacrobusto anglici uiri clarissimi: una cum theorica planetarum.

Col. 3, No. 2-5.

Pomponius mella de situ orbis terrarum.

Dionysius de situ orbis.

Apianus alexandrinus de romanorum ciuilibus bellis.

Apianus alexandrinus de perdito tempore ac historiis romanorum.

Col. 3, No. 9:

Calendaria magistri Johannis de monte regio.

This sheet is printed in a type "which greatly resembles Ratdolt's." The books enumerated seem to prove that it is of earlier date than the preceding advertisement.

43. Fasciculus temporum. May 28, 1484. Folio.

Collation. [As a-gs hro.] No signatures. 8 unnumbered, 66 numbered leaves. Table has 3 cols. 57, 58 ll.; the proem, 2 cols., 57 ll. Types 3 and 9.

Contents. Fo. 12, blank. 1 b, dedication. 22 to 8 b, table. 92, proem.

10 a, cuts. 10 b, text. End, 74 a. 74 b, blank.

Illustrations. Two of the large diagrams of the first edition. Small diagrams as before. Initials, set 2: C. Set 5: S. Also G as in the previous editions, and A of set 8. For other illustrations see Note A.

References. Hain 6934. British Museum [805. h. 11 (1)]. Bodleian [Au&. 2 Q. infra i. 14].

44. Orosius. July, 1484. Folio.

Panzer III. 205, 766, from Maittaire, Index, II., p. 107 (ex Orland., p. 374). Wilh. Meyer, "Die Bücheranzeigen," etc., p. 23, gives the date as July, 1484.

45. PIETRO BORGO. Arithmetica. Aug. 2, 1484. Quarto.

Collation. [a] b-0° p6. 118 ff. (1 unnumbered, 116 numbered, 1 unnumbered).

36 (37, 38) ll., with marginalia. Types 4, 9.

Description. Fo. 1 a: S H S U || [2 lines blank] || Chi de arte matematiche ha piacere || Che tengon di certeça el primo grado || (etc., 17 lines in all). Fo. 1 b (in type 9): Questa infrascripta tauola dino || ta edimostra lasignissication de le || infrascripte zisre . . . Fo. 2 a: Qui comenza la nobel opera de || arithmethica ne la qual se tracta || tute cosse amercantia pertinente || facta z compilata p Piero borgi || da veniesia || (type 4) Ben che numero di maistri assai sufficienti || . . . End, 117 b, l. 32; 33 blank; 34: Laus deo. Fo. 118 a: Tauola de li capitoli otegnudi \(\bar{1}\) \(\bar{q}\) sta opa. || 118 b: S H S U || (line 2 blank) || Quanto latua memoria et alto ingegno || . . . (l. 11): Ma limpressor de augusta Errardo experto || de lopera presente stampatore || . . . End, l. 19; 20, blank; 21: Nela inclita citade venetia a corni. 2. || augusto. 1484. su imposto sine ala pre- || sente opera. ||

Illustrations. Initials, set 2: BP. Set 5: ACDEFHIMOPSTV.

References. Hain 3660. British Museum [8504. cc. 33]; from the collection of Count Boutourlin. Trinity College, Cambridge (Sinker, No. 274).

46. ABRAHAM ABEN EZRA. De natiuitatibus. Dec. 24, 1484. Quarto.

Collation. a b c 3 d 6. 30 ff. 38 ll. Type 4.

Contents. Fo. 1 a, blank. 1 b, a diagram. 2 a, l. 1, heading; 2, 3, blank; 4, text. End, 20 b. 21 a, Compositio astrologi hanrici bate. End, 30 a, l. 22; 23, blank; 24-28, colophon. 30 b, blank.

Illustrations. Sixteen diagrams. Initials, set 2: DV. Set 5: ADEHIN OPSV. Lombard capitals of set 8: DS.

References. Hain* 21. British Museum [718. g. 1 (1)]. Bodleian [Ashmole 465 (4)].

47. Chiromantia. 1484.

Printed at Padua by Mathaeus Cerdonis of Windischgrätz, "Erhardi Ratdolt instrumentis."

This refers to the diagrams of hands, 21 in number, in the first of which are inserted some words in Ratdolt's type 4. These cuts presuppose an earlier edition of the Chiromantia, probably that described below, No. 63. See also No. 23, above.

Hain* 4974. British Museum [8630. g. 7].

48. Hyginus. Poeticon astronomicon liber. Jan. 22, 1485. Quarto.

Collation. a-g*. 56 ff. 32, 33 ll. Types 8 and 10 [on fo. 1 b only].

G

Contents. Fo. 1 a, blank. 1 b, diagram. 2 a, ll. 1-4, heading; 5, blank; 6, text. End, 55 a, last line. 55 b, a poem by Jac. Sentinus, ending 56 a, l. 24; 25, blank; 26-29, colophon. Fo. 56 b, blank.

Illustrations. Forty-seven cuts as in No. 30. One diagram. Initials, set 2: EIQ. Set 5: ACDEGHILMNOPQRSTVZ. Set 6: S. References. Hain* 9063. British Museum [8560. b. 41]. Bodleian [Auct. N. v. 7 (3)]. BS. III. 718 (1). University Library, Cambridge.

49. Publicius. Ars oratoria. Jan. 31, 1485. Quarto.

Collation. A-G: H:0. 66 ff. 32 ll. Type 8; types 6 and 10 in diagrams,

and Greek type.

[ALLINION]

Contents. Fo. 1, blank? 2 a, ll. 1-11, heading; 12, blank; 13, text. End, 37 b. 38 a, Ars scribendi epistolas. End, 51 a. 51 b, Ars memoriae. 60 b-63 b, the alphabet in cuts. 64 a, diagram, and text which ends 65 a. 65 b, 66 a, diagrams. 66 b, cut and colophon.

Illustrations. Fasciculus temporum, cut No. 21; new cut of a man and woman. Two other cuts and 7 each containing six figures as in No. 31, but the last figure of the last block has been cut out. Five diagrams. Initials, set 2: CHNS. Set 5: ABCDEHILMNOPQRSTV.

References. Hain* 13546. British Museum [C. 5. a. 1]. Bodleian [Auct, 2 Q. vi. 38]. BS. III. 759.

50. Augsburg Breviary. April 30, 1485. Octavo.

Collation. Not known. Signatures, leaves numbered. 2 cols. Gothic type. Contents. Fo. 1 a, blank. 1 b, a notice stating that the work was printed for the Bishop of Augsburg. 2 a, pealter; followed by the other offices. Colophon at end. [For details see Hain, who copies Panzer.]

Illustrations. Cut of the Bishop of Augsburg's arms on fo. 1 b.

References. Hain 3792. Panzer III. 215, 832 (Strauss, p. 340: Zapf, I. p. 170, II. p. 258).

July 4, 1485. Folio. 51. HALY. De iudiciis astrorum.

Collation. 4 ff. unsigned, 2-t3. 4 unnumbered, 152 numbered leaves. 2 cols., 60 (61) ll. Type 4.

Contents. Fo. 1 a, blank. 1 b, dedication. 2 a-4 b, col. 1, table. 5 a, text. End, 156 b, col. 1, l. 49; 50, 51, blank; 52-60, colophon; rest of leaf blank.

Illustrations. One diagram. Initials, set 2: CDEHS. Set 5 (worn): AB CDEFGHILMOPQSTV. Set 8: ACDEHINPQS. Set 9: C I.

References. Hain* 8349. British Museum [718. i. 2 (1)]. Bodleian [Auct. 2 Q. iv. 14]. University Library, Cambridge.

52. Fasciculus temporum. Sept. 8, 1485. Folio.

Collation. [A² a-g² h²0.] No signatures. 8 unnumbered, 66 numbered leaves. 2 cols. 58, 59 ll. in table and proem. Types 4, 9.

Contents. Fo. 1 a, blank. 1 b, dedication. 2 a-8 b, table. 9 a, proem. 10 a, cuts. 10 b-66 a, text. 66 b, blank.

Illustrations. One large diagram as in the first edition. Small diagrams, etc. Initials, set 2: C. Set 5: S. G as in the other editions. Four-line Lombard, as No. 34: A. For other illustrations see Note A.

References. Hain* 6935. British Museum [9006. h. 4]. Bodleian [Auct. 2 Q. infra i. 1].

53. MÜLLER. Calendarium. Oct. 10, 1485. Quarto.

Collation. a 20 b c 3 d 2.] 28 ff. 2 cols., 41 ll. Type 4; types 7 and 10 in tables and diagrams. Printed in black and red.

Contents. As No. 27.

Illustrations. Border 7. Eclipses (worn), diagrams, and KL as in No. 29. Initials, set 2: H. Set 5: ACEHILNPQV.

References. Hain 13779. British Museum [3836. de.]. Bodleian [Auct. 6 Q. vi. 70].

54. DURANTUS. Rationale. Dec. 8, 1485. Folio.

Collation. 2-e² f⁶ g h² i-z, A-E⁶ F G². 198 ff. 2 cols. (table, 3 cols.), 60 ll. Types 4, 9.

Contents. Fo. 1 a, blank. 1 b, dedication. 2 a, text. End, 195 a, col. 1, l. 25; 26-28, blank; 29-33, colophon; 34-40, blank; 41, a letter; ends col. 2, l. 47. 195 b to 196 b, col. 3: Rubrice rationalis diuino- || rum officiorum. 197 a, Jncipit registrum chartarū. 197 b, 198, blank.

Illustrations. One diagram. Initials, set 2: ILPQ. Set 5: ABCDEF HILMNOPQSTV.

References. Hain 6490, British Museum [3833. cc.]. Bodleian [Auct. 2 Q. ii. 2 (1)].

55. Alchabitius. Libellus Isagogicus. 1485. Quarto.

Collation. a a-1 ls m m 10. 98 ff. 32, 33 ll. in part 1, 38, 39 in part 2. Types (part 1), 8; (part 2), 4, 9; in diagrams, 6, 10.

Contents. Fo. 1 a, blank. 1 b, a diagram. 2 a, ll. 1-6, heading; 7, blank; 8, text in type 8. End, 35 b. 36 a, commentary in types 4, 9. End, 98 a, l. 15; 16-18, blank; 19-25, colophon. 98 b, blank.

Illustrations. Four diagrams. Initials, set 2: DENPV. Set 3: ACDE FHILMNOPOSTV. Set 6: S. Set 8: DEHIMNOOSU.

References. Hain* 617. British Museum [8560. dd. 10 (2)]. Bodleian [Au&. N. v. 7 (2)]. University Library, Cambridge.

56. Opus repertorii pronosticon. 1485. Quarto.

Collation. 2-e^a f¹⁰. 1 unnumbered and 49 numbered leaves. 38, 39 ll.

Types 4, 9.

Description. Fo. 1, blank. 22 (type 9): Opusculū repertorii pronosticon in ||
mutationes aeris tam via astrologica || q̃3 metheorologica vti sapiētes expe-||
rientia comperientes voluerunt pq̃3 || vtilissime ordinatū incipit sidere selici || z
primo prohemiū. || (1 line blank.) || C V m ī multis volumi-|| . . . End., 46 b,
l. 34; 35 blank; 36: Repertoriū de mutatione aeris Finit. || (l. 37 blank.) ||
Hyppocratis libellus de medicorū astrologia incipit: || a Petro de abbano in
latinū traductus. || End., so. 50 a, l. 17: tum malorū mories. || (l. 18 blank.) ||
Hyppocratis libellus de medicorū astrologia sinit: a Petro de abbano || in
latinū traduct. Jmpressus est arte ac diligentia mira Erhardi Rat-||dolt de
Augusta Jmperante inclyto Johanne Mocenico duce Uene-||torū: Anno salutifere incarnationis. 1485. || Uenetijs. || Fo. 50 b, blank.

Illustrations. Initials, set 2: CDS. Set 3: C. Set 5: ACDEGILN QS. Set 6: S. Set 8: CDEIMNS. Set 9: I. Set 10: I.

References, Hain 13393. British Museum [531. k, 1 (2)]. Bodleian [Auct. Q. supra i. 11].

57. Sphaera Mundi. 1485. Quarto.

Collation. 1-68 710. 58 ff. 33 (32) II. Type 8; 4, 6, 10 in diagrams.

Contents. Fo. 1 a, blank. 1 b, a diagram. 2 a, ll. 1-7, heading; 8, text of Sphaera mundi. Ends 18 a. 18 b to 44 b, Theoricae nouse planetarum. 45 a, Disputationes contra Cremonensia. End, 58 a, l. 14. Then a table of planets, and colophon.

Illustrations. Sixty-one diagrams, mostly as in No. 27. Four colours are used in printing these; two shades of brown, red, and black. Initials, set 2: PST.

Set 5: HLMNOPQSV.

References. Hain* 14111. British Museum [531. k. 1 (1)]. Bodleian [Auct. N. v. 7 (1)].

58. VORAGINE. Legenda aurea. 1485. Folio. Historia Lombardica cum additionibus. Venetiis per Erhardum Ratdolt. 1485. References. Panzer III. 217, 840, from Denis, Suppl., p. 240. A very doubtful edition.

59. Gran Missal. [Before 1486.]

The existence of this edition is proved by the colophon of No. 60; but no copy of it is now known.

60. Gran Missal. March 18, 1486. Folio.

Collation. [A* B* C*] a-i* k* o l6 m-2* A-D* E6. 14 leaves unnumbered, ccxxi numbered, and 1 leaf unnumbered. 2 cols. 39 and 27 lines. Three Gothic types; the colophon is printed in type 9. Printed in red and black.

Description. Ff. 1-14, preliminary matter. 15 a, col. 1: Missale Diuinorum officiorum tam de tempore quam de sanctis secundum chorum alme ecclesie Strigoniensis. End, so. 236 a, col. 1: Finit seliciter Missale diuino || rū officioruz tam de tempore || q̃z de sanctis cū certis officijs || annexis: utputa de tanssigura- || tioe dni: de pestiletia: z cetera: || şm chorū alme ecclesie Stri- || goniesi. bene reuisum ac sideli || studio emedatū: de cosensu ac || fauore Reueredissimi in xpo || patris ac dni: domini Michae || lis epi Milckouiesi. ac in pon- || tisicalibus vicarij generalis p- || nomīate ecclesie Strigoniesi. || alioza dominoz de capitulo || Jmpressum Venetijs iterū se || cūdo per Erhardum ratdolt || de augusta. Regnante selicissi- || me serenissimo ac inuictissi- || mo Matthia hungarorū rege || domino nostro gratiosissimo || Anno salutisere incarnatiosis || dni nostri ihesu xpi. M.cccc. || lxxxvj. die xviij. Martij Ad lau || dē dei eiusa genitricis perpe || tue virginis: cui honor z glo- || ria in euum Amen. || Deo gratias.

Illustrations. Large wood-cut of the crucifixion on fo. 97 b. Initials, apparently new, of four sizes. (a) 83×79 mm.: T. (b) 49×43 mm.: A B C D E L M N P R S T Y. (c) 37×36 mm.: G. (d) 29×29 mm.: G.

References. Weale, Catalogue of the Historical Music Loan Exhibition, 1885, p. 53 (with facsimile of the colophon). Weale, Bibliogr. Liturgica, p. 195. Four copies known, all in Hungary.

61. Astrolabium. No date. Quarto.

Astrolabii quo primi mobilis motus deprehenduntur Canones.

Hain* 1898. Bodleian [Auct. 4 Q. v. 7]. Panzer III. 490, 2755.

This book has a title page, which is never found in the books in Gothic type printed at Venice, and is therefore probably a production of the Augsburg press.

62. Bricot. Quaestiones. No date. Folio.

Collation. Unknown. Gothic type.

Quaestiones super Aristotelem. End: Finit feliciter metaphifica.

References. Hain 3976, who thinks it identical with *3975, printed by J. von Amerbach. Panzer III. 490, 2756. Denis, Suppl., p. 522.

63. Chiromantia. No date. Quarto.

Collation. Signatures. 25 (26?) ff. Gothic type, probably No. 4.

Begin (fo. 1 a): Ex diuina philosophorum academia: secundum nature vires ad extra: Chyromanticio diligentissime collectum. End: Ex diuina philosophorum academia collecta: chyromantica scientia naturalis ad dei laudem finit. Impressum Uenetiis per Erhardum ratdolt de Augusta.

Illustrations. Wood-cut diagrams. See above, Nos. 23 and 47.

References. Panzer III. 490, 2754, described from a copy in his own collection. Hain 4971.

- 64. Erclärung über das Almanach. No date. Quarto. Hain* 6666. Probably printed at Augsburg.
- 65. Publicius. Ars oratoria, etc. No date. Quarto.

 Collation. Not known. 74 ff.

 Contents. Jacobi Publicii Oratoriae artis epitomata. Eiusdem Facilis memoriae

artis modus. Eiusdem Ars Tulliano more epistolandi. Eiusdem Pacilis memoriae artis modus. Eiusdem Ars Tulliano more epistolandi. Eiusdem Panegyricus ad principem Tarantinum hispan. ducem. End: Impressum Uenetiis per magistrum Erhardum ratdolt de Augusta.

References. Panzer III. 490, 2751 (Gras, p. 59).

66. MICHAEL SCOTT. Physiognomia. No date. Quarto.

Collation. Not known. "Char. goth. E. Ratdolt."

Begin: Incipit Liber Physionomie quem compilauit magister Michael Scotus ad preces D. Federici Romanorum Imperatoris. Scientia cuius est multum tenenda in secreto: eo quod est magne efficacie. End: Michaelis Scoti de procreatione et hominis Phisionomia opus feliciter finit.

References. Panzer III. 490 (Denis, Suppl., p. 661).

ADDENDUM.

16B. CAORSIN. Obsidio urbis Rhodiae. [1480?] Quarto.

Collation. a 10 bs. 18 ff. 26, 27 ll. Type 1.

I've 4248

Description. Fo. 1 a: Gulielmi Caorsin Rhodiorū uicecancel- || larij: obsidionis Rhodie urbis descriptio. || [Line 3 blank.] || Hodie urbis obsidionē descripturus: || . . . End., fo. 18 b, l. 26: gloriam. rerum gestarum comentarium edidit. || Laus deo.

References. Hain 4356. British Museum [1312. c. 27]. Bodleian [4°. M. 30 Jur. Seld. (12)].

NOTE A.

COMPARATIVE TABLE OF THE WOOD-CUTS (OTHER THAN INITIALS OR DIAGRAMS) IN THE FOUR EDITIONS OF THE "FASCICULUS TEMPORUM."

The numbers given are those of the leaves as numbered, the unnumbered leaves not being counted. Nos. 7, 8 belong to each other, but are only found together on ff. 13 b and 48 b of the first edition. No. 15, cut to join 13 and 6, is only once used for its proper purpose.

1485		+ b.	13 b, 48 a, 50 a, 50 b.	512, 632.									. 14 b, 55 a, 62 b.		14 b, 17 b, 40 b, 52 a [does not fit in any	37 b. [case.]	38 a, 51 a.	15 2, 38 2, 41 2, 47 2, 47 b.	41 b.	ů	30 b. See also No. 49.	44 b, 46 b.	14 a, 14b, 17 b, 46 b, 47 a, 48 b, 65 a.	47 a.	44 b, 45 b, 62 b.	14 b. 48 b.
1484.	વ જ	+ b.	17 b, 45 b, 49 a, 50 b, 62 b.	46 a, 51 a, 63 a.	9 6.	48 a, 50 b.	5 b, 47 a, 51 a, 63 a.	5 a, 31 b, 40 b, 46 b, 48 b, 62 a	14 2, 40 b.	13 b, 41 a, 47 b, 52 a.	28 a, 63 a.	162, 48 b.	14 b, 24 a, 38 a, 44 b, 50 a, 55 a.	262.		37 b.	38 a, 44 b, 51 a.	13 b, 15 a, 38 a, 41 a, 44 b.	41 b.	40	13 b, 31 a.		48 b, 65 a.		31 a, 47 a, 62 b.	
1481.	3,6	å.	18 a, 62 b.	5 b, 23 b, 28 2, 30 b, 31 b, 63 2.	46	31 a, 48 a, 62 b.	15 a, 49 a, 63 a.	14 a, 17 b.	16 a, 40 b, 41 a.	5 2, 14 b, 24 a, 40 b, 48 b.	30b, 46 a, 55 a, 62 a, 63 a.			26 a.	31 a [does not fit].	37 b.	30 b, 38 a.	31 2, 31 b, 50 b, 51 a.	41 b.	2 a (Christ in glory).	13 b, 41 a, 50 a.	13 b, 44 b, 47 a, 48 a.	14 2, 16 2, 46 b, 47 b, 48 b, 50 b, 64 b.	45 b, 46 b, 47 b, 52 a.	. 45 b, 47 a, 51 a.	47 b, 50 b, 64 b.
1480.		2. 4 b (Tower).	3. 5 a, 17 b, 40 b, 45 b, 49 a, 55 a.	4. 5 b, 46a, 51 a, 63 a.	5. 9 b (Temple).	6. 13 b, 31 a, 48 a, 50 a, 62 b.	7. 13 b (left half), 47 a, 48 b, 51 a, 63 a.	8. 13 b(right half), 31 b, 46b, 48 b, 62 a. 14 a, 17 b.	9. 14 a (ruin).	10. 14 b, 41 a, 47 b, 52 a.	11. 15a, 28a, 50b, 63a.	12. 16a (ruin), 40 b, 41 a.	13. 24 a, 31 a, 38 a, 44 b, 47 a, 50 b.	14. 26 a (Salvator mundi).	15. 31 a (a piece joining 13 and 6).				19. 41 b (Pantheon).				23	24	•	

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Erhardi Ratdolt foelicia conspice figna. Zestata artificem qua valet ipse mamm.



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ERHARD RATDOLT.

SUPPLEMENT.

September, 1895.

Note.—This additional illustration, which reproduces Ratdolt's Trade-List, is the present to the Society of Dr. Konrad Burger. In sending it out, the opportunity has been taken to print a few additions and corrections to Mr. Redgrave's monograph.

PLATE XI.

DR. BURGER informs me that in the copy of this interesting book-list, which is preserved at Leipzig, there are a few worm holes, which may be observed in the present facsimile. One of these holes passes through the word forming the last line of the first column, "Salustius," which is thus rendered somewhat illegible. Another worm hole has partially destroyed the st of "Astronomia," printed in red, in the second column. Dr. Burger remarks that the list which forms No. 19 of Meyer (p. 40 of monograph), is printed with types which often occur in the associated press of John de Colonia, Jenson, etc.; a fact which has escaped the notice of Meyer.

G. R. R.

ERRATA.

In Note, line 3, for "Nos. VIII. and X." read "Nos. VII. and X."

line 5, for "Bürger" read "Burger."

In text, page 17, line 10, for "pl. 7, 8" read "pl. 7, 10."

- " page 18, lines 10 and 11, for "I. Sentinus and I. Santritter" read "J. Sentinus and J. Santritter."
- " page 20, line 2, for "pl. 8" read "pl. 7."
- " page 20, line 8, for "I. Santritter" read "J. Santritter."

Libri denales Benetiis impress.

In theologia

BSozalia Micolai de lira Mamotretus (up totā bibliā **Boliloquia fancti augustinică** alus.rri.openbus Biblia in charta magna **D**Sissalia parua secundá curiaz fine notis **B**Siffalia parua fancti **Tomini**/ a cum notis Bzeuiaria fancti dominici **B**zeuiaria Icóm curiam *D*iurni fecundum curiam **Diurni fancti dominici** Questiones sancti Thome Quadragefimale roberti par uo volumine Quadrageii.fratris ambiolii Legéde lctórű i puo volumie Bumma Astensis In logica Scriptu fratris Beraldi odo/ nis de ordine fratrû minoz fuper libzum etbicozum Posterioza Pauli Beneti In bijanitate z poetria Terentius cum donato **Suue nalis cum cómento Birgilius cum feruio** Põponi⁹ mella ve fitu ozbis Alid orus de lummo bono **Latolicon vocabulista** Be.. Ilins

BSartialis cum cómento **Monius marcellus** *B***Sacrobius de faturnalibus** Quidius de fastis cũ cómento Epistole ouidii cũ cómento Bilius italicus cum cómento Francicus mataratius de car minibus componendis Rbetozica Zacobi publicii flo rentini:cú de arte memoziá Discendi Eusebius de tempoubus An iure canonico e cuuli Decretum magnum Angelus ve maleficils **Bocabularium iuris** Anstituta in paruo volumine In astronomia z geo metria **Beuclides** in geometria Tabule Alphonsi Liber quadripartiti Ptholo mei:cū Lénloquio eiusdem: comentatum a loali lkalendariñ Zoannis de mon te regio Almanach siue Ephemerides **Aoannis de monte regio** Aginius de sideribus Spera cum Theorica Beor gü purbacbü An medicina **Pandetta** Artisella

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ADDITIONS TO THE BIBLIOGRAPHY.

26. Another copy in the British Museum [c. 2 c. 1.], mentioned in the text (p. 16), is printed on vellum, and has the dedicatory letter on fo. 1 b, printed in gold. This was a presentation copy to the Doge.

41. Correct.

Collation. [a10 b-z, aa14.] No signatures. 332 ff.

Contents. Ff. 11-332, calendars for the years 1484 to 1506 inclusive, each occupying 14 leaves, of which the first in each case is blank. End, 332 a; 332 b blank.

References. British Museum [8562. d. 37].

42. Here reproduced in facsimile.

The type used is No. 9, not No. 7.

References. Bibliothek des Börsenvereins der Deutschen Buchhändler, Leipzig; Royal Library at Munich.

63. Correct.

Collation. abo c10. 26 ff. 37 ll. Type 4.

Description. Fo. 1 a: Ex diuina philosophorum academia: secundum nature vires ad extra: chiromantitio: diligentissime collectum. Exordium. Philosophus in libro de celo 7 mundo: ad alexandrum End, 25 b, l. 34: exteriores lineas nobis notitiam condonauit. Ex diuina philosopho: academia collecta: chyromantica scientia na- turalis ad dei laudem finit. Impressum Uenetijs per magistrum Er- hardum ratdolt de Augusta. Fo. 26 probably blank.

Illustrations. Twenty-one cuts of hands as in No. 47, but in an earlier state. Initial, set 3: P.

Reference. British Museum [8630. f. 3].

63 B. Chiromantia, italice. No date. Quarto.

Collation. a b° c d°. 28 ff. 37 ll. Type 4.

Description. Fo. 1 a: Jncomentia larte diuina dela chyromantia recolta dala excellentissi- || ma schola de philosophi. Exordio. || EL philosopho scriuendo ad alexandro magno: nel li- || End, 28 a, l. 28: rae: l quale nel a donata tal noticia per le sue lineature exteriore. || [l. 29 blank.] || Finisse la naturale scientia chyromantica: recolta dala diuina acade- || mia deli philosophi. Stampata Uenetie di maisser Erhardo ratdolt ||

Illustrations. 21 cuts of hands as No. 63. The state of these shows that this edition is slightly the later of the two. Initial, set 3: E.

Reference. British Museum [8630. dd. 1].

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